

FIFTY-FIFTH
ANNUAL MEETING

OF THE

American Institute of Instruction.

Lectures, Discussions, and Proceedings.

COTTAGE CITY, MASS., JULY 7-10, 1884.

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PREFACE.

THE Fifty-fifth Annual Convention of the AMERICAN INSTITUTE OF INSTRUCTION, which was held at Cottage City, Mass., was in many respects a highly successful meeting. Notwithstanding the rival attractions of the great meeting of the National Educational Association at Madison, which drew away many hundreds that would otherwise have been present, the attendance was large — about one thousand — the discussions were animated, and the addresses varied, and of a high order of excellence.

A feature of the meeting, which attracted a large number of Common School teachers, was the illustration of methods and devices for teaching subjects of practical interest. Language, Natural History, and Geography were presented by Supervisors Robert C. Metcalf and Miss Lucretia Crocker, and Mr. Charles F. King respectively, all of Boston. The other exercises were a discussion of the "Place and Relative Importance of Industrial Training," by Hon. J. W. Patterson; "Training in Morals," by Dr. William T. Harris; "School Preparation for Citizenship," by George H. Martin; "Reform of the Tenure of Office," by Hon. John D. Philbrick; "Reading for Teachers," by Ray Greene Huling; "The Study of English in School and College," by Prof. A. S. Hill; and "The High School Question," by Hon. J. W. Dickinson. Besides these exercises of the day sessions, and the interesting discussions which followed them, there were four evening lectures of great excellence: one by Prof. C. T. Winchester, of Wesleyan University, — subject, "An Old Castle;" one by Frank A. Hill, — subject, "New England Primer Days;" a third by Hon. Daniel H. Chamberlain, of New York, — subject, "Not a College Fetish," a reply to Charles Francis Adams, Jr.; and a fourth by Prof. John Fiske, subject, — "Manifest Destiny."

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It is to be regretted that full reports of all the lectures were not obtainable, but where abstracts only are given, they have received the endorsement of the authors.

For the convenience of the reader we have placed the several discussions immediately following the papers referred to, instead of in the order of delivery, as given in the record of proceedings.

In addition to the regular lectures and discussions of the meeting, there is published in the Appendix to this volume a valuable essay entitled, "THE NEW EDUCATION." From among several competitors this paper was awarded the prize from the income of the "Bicknell-Fund" of the Association.

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By William Morton Payne, A. M.

AMERICAN INSTITUTE OF INSTRUCTION.

Fifti-fifth Annual Meeting.

JULY 7, 8, 9 AND 10, 1884.

JOURNAL OF PROCEEDINGS.

FIRST DAY. — MONDAY EVENING, JULY 7.

At half-past seven o'clock, Monday evening, July 7, the first general meeting of the session was called to order by the President, Homer B. Sprague, in the large iron tabernacle on the Camp Ground, at Cottage City, Mass. About two thousand persons were present. In the enforced absence of Governor Robinson and State Senator Norris, President Sprague welcomed the members to the hospitality of Cottage City, and said : —

FRIENDS OF EDUCATION : In the much-regretted absence of the Governor of Massachusetts, whom we had expected to be present on this occasion and extend to you who come from other sections, a greeting in the name of the Commonwealth, but who finds that he cannot be in two places at once ; and doubly disappointed as we are in the non-appearance of the Senator from Dukes County whom we had depended upon to address you at this time, but who is suddenly detained elsewhere ; the duty unexpectedly devolves upon me, as a native and a citizen of the State and for a dozen years

past one of the summer residents of this island, of pronouncing the word, Welcome. I do it gladly. To the Old Bay State, which loves all who love education; to this romantic corner of the historic commonwealth, with its pure air, its glorious waves, its quiet streets, its thousand lovely cottages, its interesting history, its hallowed religious memories, and its new educational advantages,—you are honored guests. Cottage City to-day opens wide its homes and hearts to all who would promote that intelligence and virtue, which, even more than its natural attractions, have made this “kingdom by the sea” what it is. To one and all, a hearty welcome!

The President then introduced Mrs. Alice Osborne, who sang with much sweetness and expression, Charles Mackay’s inspiring song beginning, “If I were a voice, a persuasive voice.”

This was followed by the President’s Address. (See Lectures.)

The lecturer of the evening, Prof. C. T. Winchester, of Wesleyan University, Middletown, Conn., was unable to use his illustrations, as the electric lamps were not in place, but his lecture, of an historical trend, was exceedingly interesting. His subject was “An Old Castle;” viz., Ludlow Castle in England, near the Welsh Border. He gave a short enumeration of the exciting scenes which this old castle had witnessed before 1560, and graphically illustrated the new era which dawned then in literature, art, and science; giving a history of the families of the Sidneys, the Dudleys, the Earl of Essex, and other noted men of the day. (By request, no abstract is published of this lecture.)

SECOND DAY. — TUESDAY MORNING, JULY 8.

The sessions were opened with prayer by Rev. John B. Gould, Allston, Mass. ; President Homer B. Sprague in the chair.

W. T. Harris, LL. D., of Concord, Mass., spoke on "Moral Instruction in Public Schools." (See Lectures.)

He was followed by Hon. J. W. Dickinson, Secretary of Massachusetts Board of Education, who presented the subject of "High Schools" in their relation to a complete school system. (See Lectures.)

The morning session closed with an illustrated lecture by Charles F. King, Sub-Master of the Lewis School, Boston, on "Teaching Geography by the Topical Method." (See Lectures.)

The President announced the following committees, which were confirmed by the convention :—

On Necrology — Charles Northend, Connecticut; Ariel Parish, Colorado; Justus Dartt, Vermont; J. W. Webster, Massachusetts; W. H. Maxwell, New York; L. L. Dame, Massachusetts.

On Nominations — G. A. Walton and A. P. Stone, Massachusetts; H. W. Willard, Vermont; A. Hadley, New Hampshire; F. F. Barrows, Connecticut; G. H. Martin, Massachusetts.

On Resolutions. — M. Grant Daniell, Massachusetts; T. J. Morgan, Rhode Island; D. N. Camp, Connecticut; W. H. Buckham, Vermont; J. W. Patterson, New Hampshire; J. O. Norris, Massachusetts.

AFTERNOON AND EVENING SESSIONS.

George H. Martin, Bridgewater, Mass., of the State Board of Education, read a paper on "Special Preparation for Citizenship." (See Lectures.)

This paper was supplemented by a brief talk by Gen. H. B. Carrington, LL.D., of Boston, after which Prof.

A. B. Palmer, M. D., of Michigan, at the request of the President, read a paper on "Sanitary Science."

We publish a brief abstract among the lectures.

The evening session, owing to the inclemency of the weather, was held in an adjoining chapel, and a large audience gathered to listen to the illustrated lecture of Princ. Frank A. Hill, of Chelsea, Mass., on "New England Primer Days."

THIRD DAY. — WEDNESDAY MORNING, JULY 9.

After prayer by Charles Northend, of Connecticut, the regular exercises were resumed.

R. C. Metcalf, Supervisor of the Boston Schools, presented a paper on "Language in Primary Schools;" William J. Rolfe, Cambridge, Mass., Shakespearian Editor, on "One Way of Studying Poetry in School;" and A. S. Hill, Professor of Rhetoric at Harvard College, on "English in Schools." (See Lectures.)

AFTERNOON SESSION.

The afternoon session was opened with a paper by Ray Greene Huling, Principal of Fitchburg, Mass., High School, entitled "The Educational Reading of Teachers."

The remainder of the session was devoted to an animated discussion on the necessity of teaching technical grammar, participated in by Messrs. Metcalf, Rolfe, and Philbrick of Massachusetts, Littlefield of Rhode Island, Maxwell and Dickinson of New York, and Conant of Vermont. Messrs. Metcalf and Rolfe further elaborated their views as given in their morning papers.

As stated in the preface, we have published all dis-

cussions after the respective papers referred to, and not in the order in which they were taken up, consequently this discussion will be found directly following the morning lectures.

EVENING SESSION.

The evening session was devoted to a lecture by Hon. D. H. Chamberlain, LL. D., of New York. His subject was entitled "Not a College Fetish," being a reply to Charles Francis Adams, Jr., on the question of "Greek in the Colleges." (See Lectures.)

FOURTH DAY. — THURSDAY MORNING, JULY 10.

The Institute re-assembled at the usual hour, the President in the chair. A business meeting having been announced for the opening hour, Mr. M. Grant Daniell of Boston, the Chairman of the Committee on Resolutions, presented the following report, which was adopted :

1. *Resolved*, That, whereas the great advance made in the adoption of improved methods of instruction and school-management is largely due to the intelligent supervision by competent educational experts, we desire to call the attention of school authorities, particularly of sparsely settled districts, to the importance of adopting plans which will give to the schools the benefit of such supervision.

2. *Resolved*, That we reaffirm the sentiments heretofore expressed many times by this Institute, in support of the National Bureau of Education, and in appreciation of the great value and importance to the cause of education and of the work it is doing.

3. *Resolved*, That the thanks of the Institute are due and they are hereby tendered to all those managers of railroad and steamboat lines who have consented to grant reduction of fares to members of the Institute; to those Hotel proprietors of Cottage City who

have generously reduced their rates of board to our members ; to the ladies and gentlemen who have all of them without compensation favored the Institute with lectures, papers, readings, or music ; to Prof. Dwight, Hon. R. L. Pease, and Messrs. L. L. Dame, C. P. Rugg, T. D. Adams, G. A. Littlefield and C. E. Merrill for their valuable services in conducting excursions ; to the proprietors of the Iron Tabernacle, the Methodist Chapel, and the Union Chapel, Oak Bluffs, for the free use of their respective buildings and to all others who have contributed in any way to the success of the convention.

4. *Resolved*, That we hereby express our obligations to the officers of the Institute to whose untiring efforts for many weeks past we are indebted for the success of the current meeting ; and we desire to put on record especially our high appreciation of the inestimable value of the services of our President, Col. Homer B. Sprague, and our sincere regret at his determination not to accept a reëlection.

The Committee on Necrology, Charles Northend, Chairman, followed with its report. Only two members had died during the year, viz. : Josiah A. Stearns, Boston, teacher forty years, aged 71 ; born in Bedford, Mass., died September, 1883. Isaac F. Cady, Barrington, R. I., aged 66 years ; taught at Wethersfield, Ct., Providence and Warren, R. I., Savannah, Ga., died at Barrington, R. I., April, 1884. (See appendix to this volume.)

The general exercises were then proceeded with.

Hon. J. W. Patterson, Superintendent of New Hampshire Schools, spoke on "Industrial Education ;" Mr. E. O. Norris for Miss Lucretia Crocker, Supervisor of Boston Schools, on "Natural History in Elementary Schools—Why it should have a Place there ; When and How it should be taught ;" and Hon. John D. Philbrick, ex-Superintendent Boston Public Schools, on "Reform of the Tenure of Office of Teachers." (See Lectures.)

AFTERNOON SESSION.

This session was devoted to the discussion of the paper on "Reading for Teachers and Industrial Education."

Messrs. Philbrick, Seaver, McDonald, and Adams of Massachusetts, Camp of Connecticut, Church of Rhode Island, Fletcher of Maine, Kelsey of Ohio, Fordson of North Carolina, and Dr. Palmer of Cottage City, all urged the importance of professional reading.

Industrial training was presented by Supt. Seaver, who very ably explained the Boston experiment, and the necessity for such experiment; also by Drs. Philbrick, Palmer, and Twombly; Supts. Adams and Fletcher, and Prof. H. H. Straight of Illinois, Hon. J. W. Patterson of New Hampshire, Princ. McDonald of Massachusetts and Supt. Kelsey of Ohio.

EVENING SESSION.

Election of Officers.

At the opening of the evening session, President Sprague refusing reelection, the following list of officers were reported by the Committee on Nominations, and unanimously elected by the Association :

President. — J. W. Patterson, New Hampshire.

Vice-Presidents. — Henry Barnard, Hartford, Conn.; Henry K. Oliver, Salem, Mass.; Ariel Parish, Colorado; John D. Philbrick, Boston, Mass.; Hiram Orcutt, Boston, Mass.; Chas. Northend, New Britain, Conn.; Merrick Lyon, Providence, R. I.; Thomas W. Bicknell, Boston, Mass.; C. C. Rounds, Plymouth, N. H.; A. P. Stone, Springfield, Mass.; John Eaton, Washington, D. C.; B. G. Northrop, Clinton, Conn.; T. B. Stockwell, Providence, R. I.; D. N. Camp, New Britain, Conn.; J. W. Dickinson, Boston, Mass.; D. W. Jones, Roxbury, Mass.; D. B. Hagar, Salem, Mass.; A. G. Boyden, Bridgewater, Mass.; E. A. Hubbard, Hatfield,

Mass.; J. H. Hanson, Waterville, Me.; M. H. Buckham, Montpelier, Vt.; J. L. M. Curry, Richmond, Va.; A. D. Mayo, Boston, Mass.; Edward Conant, Castleton, Vt.; Sarah E. Doyle, Providence, R. I.; Celeste E. Bush, New Britain, Conn.; W. J. Corthell, Gorham, Me.; Augustus Morse, Hartford, Conn.; Albert Harkness, Providence, R. I.; Chas. P. Rugg, New Bedford, Mass.; W. E. Eaton, Charlestown, Mass.; H. F. Fuller, Worcester, Mass.; Edwin P. Seaver, Boston, Mass.; D. W. Hoyt, Providence, R. I.; W. T. Harris, Concord, Mass.; W. E. Sheldon, Boston, Mass.; Geo. H. Martin, Bridgewater, Mass.; J. M. Sawin, Providence, R. I.; H. W. Willard, Saxton's River, Vt.; W. T. Peck, Providence, R. I.; Justus Dartt, Montpelier, Vt.; John T. Prince, Waltham, Mass.; H. C. Hardon, Boston, Mass.; R. Woodbury, Castine, Me.; F. F. Barrows, Hartford, Conn.; L. W. Russell, Providence, R. I.; F. D. Blakeslee, E. Greenwich, R. I.; Ellen Hyde, Framingham, Mass.; Judah Dana, Castleton, Vt.; J. G. Scott, Westfield, Mass.; A. W. Edson, Attleboro, Mass.; Eldredge Smith, Dorchester, Mass.; E. S. Ball, Westerly, R. I.; J. D. Bartley, Bridgeport, Conn.; J. F. Blakington, Boston, Mass.; H. E. Sawyer, New Britain, Conn.; E. H. Howard, Providence, R. I.; I. N. Carleton, Bradford, Mass.; Larkin Dunton, Boston, Mass.; George A. Littlefield, Newport, R. I.; G. T. Fletcher, Marlboro, Mass.; James A. Page, Boston, Mass.; A. D. Small, Boston, Mass.; T. J. Morgan, Providence, R. I.; Richard L. Pease, Edgartown, Mass.; J. C. Greenough, Amherst, Mass.; R. G. Huling, Fitchburg, Mass.; L. L. Camp, New Haven, Conn.; Amos Hadley, Concord, N. H.; W. W. Waterman, Taunton, Mass.; E. H. Davis, Chelsea, Mass.; H. M. Harrington, Bridgeport, Conn.

Secretary. — Robert C. Metcalf, Boston, Mass.

Assistant Secretary. — George E. Church, Providence, R. I.

Treasurer. — James W. Webster, Boston, Mass.

Assistant Treasurer. — J. Milton Hall, Providence, R. I.

Councillors. — Homer B. Sprague, Wm. A. Mowry, M. G. Daniell, A. J. Manchester, J. S. Barrell, W. H. Lambert, George A. Walton, B. F. Tweed, John Kneeland, A. P. Marble, E. R. Ruggles, Frank A. Hill, J. G. Edgerly.

The Committee on the Prize Essay for the Bicknell Fund, Hon. T. B. Stockwell, Chairman, announced that

Mr. William M. Payne of Chicago, Illinois, was the author of the essay selected, and that he should receive the prize of sixty dollars. The subject of the essay was: "The New Education, its Origin, History, Principles, Methods, and Results." (See appendix to this volume.) This report was formally received, and its recommendations adopted.

The address of the evening was then given by John Fiske, of Cambridge, Mass., the title of his subject being "Manifest Destiny." (See Lectures.)

At the conclusion of the paper, President Sprague, in a few well-chosen words, introduced the President-elect, Hon. J. W. Patterson of New Hampshire. Mr. Patterson made a felicitous reply, congratulating President Sprague on the success of the meeting and inviting all to the next meeting of the Association in 1885.

The various sessions were pleasantly enlivened by some admirable singing by Mrs. Alice Osborne, and readings by Profs. Davis, Jelliffe, and others.

Thus passed into history one of the most interesting meetings of the American Institute of Instruction.

LECTURES AND ADDRESSES

DELIVERED BEFORE THE

AMERICAN INSTITUTE OF INSTRUCTION.

JULY 7, 8, 9 AND 10, 1884.

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I.

PRESIDENT'S ADDRESS.

BY COL. HOMER B. SPRAGUE, PH. D., OF MASSACHUSETTS.

The year 1830, in which this organization was founded, witnessed the beginning of three great movements in American civilization, industrial, moral and intellectual. The industrial movement to which I refer, is perhaps, best illustrated by the growth of the railway system. Originating in 1830, or about that time, in the granite quarries of Quincy, Mass., the slender parallel bands, like needles forming in the process of crystallization, have yearly pushed their network further and further, till now it is but the commonplace of the orator to say that the ends of the Continent have been knit together, the silver beach of Nantasket to the golden gate of San Francisco, the pines of Maine to the sequoias of the far southwest, the fresh seas that murmur on the north to the salt floods that roar on the south, the silent everglades of Florida to

"The continuous wood
Where rolls the Oregon and hears no sound
Save his own dashings," —

a vast arterial system, through which the life-tide of the nation incessantly pulses. Best symbol of the speed and power of American industry, though perhaps soon to be superseded by a stronger, swifter, more ethereal force, the

poet's fire-breathing steed of steel — outdoing the fabled Pegasus, now scaling mountains, now descending into the bowels of the earth — has not simply multiplied channels of trade, and sinews of labor, but it has built a thousand cities, where fifty years ago no centre of population nor even a thoroughfare of travel could have been foreseen. And now have come the delicate interlacing lines of wires, the nervous system of the body politic, along which shoot the lightning shuttles of thought and feeling, weaving rich robes of peace. Railroad arteries, steam muscles, electric nerves — these have made the nation an organism, all parts mutually means and ends; so that, although the twenty-four states of 1830 have been doubled, and the thirteen millions of people have been quadrupled, the organic whole is far more closely compacted and far more vividly conscious of its unity than was possible fifty-four years ago.

But grander than any material development has been the awakening and triumph of the general conscience, best illustrated perhaps by the anti-slavery reform. Feeblest in outward appearance of all the agencies that ever undertook the destruction of a gigantic evil, one man against a nation, a solitary voice crying unheard in the wilderness —

“A motion toiling in the gloom,
The spirit of the years to come
Yearning to mix itself with life,” —

this reform was born about the year 1830. Fifty years ago, it was the tiniest of ripples on the dead sea of American political morals. But soon the ripple became a billow, the billow gathered strength and volume, it was multiplied a millionfold, it swelled to an ocean current.

"One man with God is a majority." As sun and moon lift and swing and impel the ocean, so a power from on high roused and swayed and pushed the swelling sea of Northern liberty to battle with Southern slavery : volcanic passions and strong ambitions and selfish cross-currents were intermingled ; but there was on each side a central purpose, a deadly earnestness. As the Atlantic tidal wave, augmented by furious eastern gales, meets the seemingly resistless Amazon, and with thunder voice sends it whirling back a thousand miles towards its source, so the might of Liberty met, overpowered, scattered, annihilated Slavery.

More quiet, but perhaps not less far-reaching and sublime, was the great educational awakening, beginning in the same year, 1830, typified by the American Institute of Instruction, the first of all our town, city, county, state and national educational organizations. On the ides of March, 1830, in the city of Boston, a preliminary meeting was held.* It continued four days. A committee was appointed, consisting of Ebenezer Bailey, Geo. B. Emerson, B. D. Emerson, A. Andrews, and Gideon F. Thayer of Boston, Henry K. Oliver of Salem and J. Wilder of Watertown, to take steps for the formation of a permanent body. They drafted a constitution. In August, 1830, a second meeting was held in the State House in Boston. It lasted four or five days. More than three hundred friends of education were in attendance. Eleven states were represented. The constitution was adopted. Francis Wayland of Brown University, was chosen first President. Eighteen lectures were delivered, some by the gentlemen I have named, and by Rev. John Pierpont, Professor C. C. Felton, and others hardly less dis-

* See Northend's History of the American Institute of Instruction.

tinguished. The association was incorporated. "And thus" to use the language of one whom we all revere, and who honors us by his presence to-day,* "in full bloom and maturity, like Minerva from the head of her sire, came into existence the American Institute of Instruction." Of that company who founded this Institute, but one survives, not the least of the illustrious throng, General Henry K. Oliver, of Salem, bright and venerable name, full of years

"And that which should accompany old age,
As honor, love, obedience, troops of friends."

I had hoped to see him here on this occasion. Yonder, in Salem he stands, cheerfully, patiently awaiting the last summons, infirm in body but with intellect unclouded and keen, fully assured that

"It is not death to die,
To leave this weary road
And, with the brotherhood on high,
To be at home with God."

Serus in cælum redeat.

There was sore need of educational reform when this Institute was started, fifty-four years ago. Up to 1830 there had been in this country no effort to make teaching a profession. The first normal school in America was established after that time. Now we have more than a hundred, each doing a most useful work. Then there were no institutions for the superior education of woman; now we have hundreds of such colleges and universities. Then there were comparatively few institutions for the secondary instruction of girls; now we have in Massachusetts alone two hundred and twenty high schools into

* Elbridge Smith, of Dorchester.

which girls are admitted, and it is, I believe, a fact that in New England more girls than boys are getting a high education. Then there were no blackboards, no school libraries, no kindergartens, no drawing-classes, no educational journals or magazines, no school apparatus but ferules and birch-rods; no school furniture but the teacher's table and chair, a square iron box called a stove, long benches called seats, often backless and frontless, like that on which I myself sat many a weary hour in my childhood forty years and more ago. No school-house had any provision for ventilation. The building itself was often a wretched shanty. One of the best was that of the public Latin school of Boston, very near where the Parker House now stands, and which gave its name to School Street; a rude building little prophetic of the palatial structure on Dartmouth Street dedicated a few years ago to the same school and costing more than three-quarters of a million of dollars. The requirements for admission to college have been more than doubled. Fifteen years ago in private and in the newspaper press I argued in favor of the establishment of chairs of didactics or pedagogics in colleges. To-day, two of the greatest of American Universities, Harvard and Michigan, have created such professorships, the most important, I verily believe, in their whole system of instruction. Many thousands of children were kept out of school by the odious rate-bills which set a premium upon absence. It is among my pleasant recollections that sixteen years ago, as house-chairman of the Committee on Education in the legislature of Connecticut, I assisted in wiping out the last of those abominations and in making the schools of that Commonwealth for the first time absolutely free. This very year, too, Massachusetts for the first time supplies

all her public-school children with text-books at the public cost, a measure that will probably bring thousands of the children of the poor into the public schools and retain them longer under instruction. Thank God for this!

In all the efforts that have been put forth in behalf of education during the last fifty-four years in this country, the American Institute has given earnest and efficient co-operation. In many hundreds of lectures, essays and discussions, it has helped the solution of every educational problem. Its history is a line of light shining more and more. We have not reached a perfect day. Far, very far from that. We have but made a beginning. Fully half the time spent in schools is still wasted for want of better methods of instruction or more competent school management. During these very sessions we are to grapple with the question of moral instruction, how to make every pupil conscientious and kind and pure and true and brave; with the question of teaching citizenship, how to make every young person intelligent and patriotic in regard to civil rights and duties; with the question of the permanence of the teacher's tenure of office, how to make his position secure during good behavior and useful service, so that the whims, the intrigues, the cruel injustice, the infernal malice and the infinite stupidity of such men as sometimes get appointed on school committees, and so that the barbarism of annual elections, shall no longer endanger the faithful teacher's hold upon his place, and *no longer* dissuade some of the finest intellects and manliest spirits from entering this profession. We are to wrestle too, now or soon, with the question of secondary instruction for the masses, *how, by a system of liberal pecuniary rewards or otherwise, the town, city, state or nation may induce the great body of children and*

youth to gain at least a high school education, so that, in every emergency in public affairs, there shall be a clear controlling majority of intelligent voters able to come to a right decision on the multitudinous and momentous issues that must arise. On such and a hundred other educational problems, where shall we look for human guidance, if not to associations like this?

Let us then for the love of our children and our children's children and all the generations yet to come, cherish such organizations, and especially this mother of them all, the American Institute of Instruction, and through it, and through every suitable instrumentality, work as best we may for the higher education of every human soul. Life is short. The night cometh.

"Death closes all; but something, ere the end,
Some deed of noble note may yet be done."

When the first century of this Institute shall have been completed, and the chimes of the year 1930 may sound, perhaps some faint impulse given by our hand may be felt in the swinging of the bells that shall

"Ring out the grief that saps the mind
For those that here we see no more;
Ring out the feud of rich and poor,
Ring in redress to all mankind.

"Ring out a slowly dying cause,
And ancient forms of party strife;
Ring in the nobler modes of life,
With sweeter manners, purer laws.

"Ring out false pride in place and blood,
The civic slander and the spite;
Ring in the love of truth and right,
Ring in the common love of good.

“ Ring out old shapes of foul disease,
Ring out the narrowing lust of gold,
Ring out the thousand wars of old,
Ring in the thousand years of peace.

“ Ring in the valiant man and free,
The larger heart, the kindlier hand,
Ring out the darkness of the land,
Ring in the Christ that is to be.”

II.

MORAL EDUCATION IN THE COMMON SCHOOLS.

BY WILLIAM T. HARRIS, CONCORD, MASS.

The separation of Church and State is an acknowledged principle in our national government, and its interpretation from generation to generation eliminates, with more and more of strictness, whatever ceremonies and observances of a religious character still remain attached to secular customs and usages. Inasmuch as religion, in its definition of what is to be regarded as divine, at the same time furnishes the ultimate and supreme ground of all obligation, it stands in the closest of relations to morality, which we may define as the system of duties or obligations that govern the relation of man to himself as individual and as race or social whole.

To the thinking observer nothing can be more obvious than the fact that the institutions of society are created and sustained by the moral activity of man. The moral training of the young is essential to the preservation of civilization. The so-called fabric of society is woven out of moral distinctions and observances. The net-work of habits and usages which makes social combination possible, which enables men to live together as a community, constitutes an ethical system. In that ethical system only is spiritual life possible. Without such a system even the lowest stage of society — that of the mere savage — could not exist. In proportion to the completeness of

development of its ethical system, a community rises from barbarism.

It is quite clear that so deep a change in the principle of human government as the separation of Church and State involves the most important consequences to the ethical life of our people.

All thoughtful people look with solicitude on the institutions of an educational character in order to discover what means, if any there be, can remain for moral education after its ecclesiastical foundation has been removed.

It happens quite naturally that the best people in the community struggle to retain the ecclesiastical forms and ceremonies in the secular. They find themselves unable to discriminate between the provinces of morality and religion. With them education in morality means education in performing religious rites. This view certainly does not harmonize with the political conviction of our people. From year to year we see the religious rites and ceremonies set aside in the legislature, the town meeting, the public assembly, the school. If retained they become empty forms with no appreciable effect.

In this sad state of affairs it becomes important to consider all other means of cultivating the ethical sense, and especially to discover how it is that institutions may be emancipated from the direct control of the church.

Without entering into this question in its details at the present time, we may remark that the history of Christian civilization shows us a continuous spectacle of the development of institutions into independence. It is a sort of training or nurture of institutions by the Church into a degree of maturity in which they come to be able to live and thrive without the support of mere ecclesiastical authority.

But an institution attains its majority only when it has become thoroughly grounded on some fundamental divine principle. The State, for instance, is organized on the principle of justice—the return of each man's deed to himself. On such principles the State may be conducted without fear of collision with the Church or other institutions.

The school, too, has certain divine principles which it has borrowed from the church through long centuries of tutelage, and perhaps can be conducted by itself without Church authority and yet be a positive auxiliary to the church and the cause of religion. Let us study these characteristics.

The school proposes at first this object, — to teach the pupil a knowledge of man and nature ; in short, to initiate him into the realm of *truth*.

Certainly truth is divine, and religion itself is chiefly busied with discovering and interpreting the Divine First Principle of the universe and his personal relation to men. In so far, therefore, as truth — real truth in harmony with the Personality of God, and not spurious truth — is taught in the school it is a positive auxiliary to the Church and to religion.

But the intellectual pursuit of truth in the school is conditioned upon a deeper principle. Order is the first law, even of Heaven. The government of human beings in a community is a training for them in the forms of social life. The school must strictly enforce a code of laws. The so-called discipline of the school is its primordial condition, and is itself a training in habits essential to life in a social whole ; and hence is itself moral training. Let us study the relation of school discipline to the development of moral character, and compare its code of duties with the ethical code as a whole.

First let us take an ideal survey of the whole field and see what is desirable, before we examine the results of the school as actually furnished. One may distinguish moral duties or habits which ought to be taught to youth into three classes: (a) Mechanical virtues in which the youth exercises a minimum of moral choice and obeys an external rule prescribed for him. In this, the lowest species of moral discipline, the youth learns self-denial and self-control, and not much besides. (b) Social duties, those which govern the relation of man to man and which are the properly called "Moral" duties. In this form of moral discipline the youth learns to obey principle rather than the immediate will of another or a mechanical prescription. (c) Religious duties, or those based on the relation to God as revealed in religion. In these the youth learns the ultimate grounds of obligation, and gains both a practical principle for the conduct of life and a theoretic principle on which to base his view of the world. In his religious doctrine man formulates his theory of the origin and destiny of nature and the human race and at the same time defines his eternal vocation, his fundamental duties. The mere statement of this obvious fact is sufficient to indicate the rank and importance of the religious part of the moral duties.

Turning now to the school, let us take an inventory of its means and appliances for moral education in the line of these several divisions. Let us remember, too, that morality consists in practise rather than in theory, and that the school can teach morality only when it trains the will into ethical habits, and not when it stops short with inculcating a correct theoretical view of right and wrong, useful as such view may be.

In the school we note first the moral effect of the

requirement of implicit obedience — a requirement necessary within the school for its successful administration. The discipline in obedience in its strict form, such as it is found in the school-room, has four other applications which remain valid under all conditions of society: (a) obedience towards parents; (b) towards employers, overseers, and supervisors, as regards the details of work; (c) towards the government in its legally constituted authority, civil or military; (d) towards the divine will, however revealed.

In each of these four forms there is and always remains a sphere of greater or less extent within which implicit obedience is one's duty. In the three first named this duty is not absolute, but limited — the sphere continually growing narrower with the growth of the individual in wisdom and self-directive power. In the fourth form of obedience to the divine will the individual comes more and more to a personal insight into the necessity of the divine law as revealed in Scripture, in nature, and especially in human life; and he becomes, through this, emancipated relatively from the direct personal control of men, even of the wisest and best, and becomes rather a law unto himself. He outgrows mere mechanical obedience and arrives at a truly moral will in which the law is written on the heart.

Obedience as a habit to what is prescribed by an authority is obviously a training that fits one for religion, even if religion has no direct part in such training. Hence the school, even when perfectly secular, in securing implicit obedience, is in so far an auxiliary of the church.

The pillars on which school education rest are behavior and scholarship. Deportment or behavior comes first as the *sine qua non*. The first requisite of the school is

order: each pupil must be taught to conform his behavior to the general standard, and repress all that interferes with the function of the school. In the outset, therefore, a whole family of virtues are taught the pupil, and taught him so thoroughly that they become fixed in his character. In the mechanical duties, habit is everything and theory little or nothing. The pupil is taught, —

(a) Punctuality: he must be at school in time. Sleep, business, play, indisposition — all must give way to the duty of obedience to this external requirement — to observe the particular moment of time and conform to it. Punctuality does not end with getting to school, but while in school it is of equal importance. Combination cannot be achieved without it. The pupil must have his lessons ready at the appointed time, must rise from his seat at the tap of the bell, move to line, return; in short, he must go through all the evolutions with this observance of rhythm.

(b) Regularity is the next discipline. Regularity is punctuality reduced to a system; conformity to the requirements of time in a particular instance is punctuality; made general it becomes regularity. Combination in school rests on these two virtues. They are the most elementary of the moral code — its alphabet, in short.

This age is often called the age of productive industry — the era of emancipation of man from the drudgery of slavery to his natural wants of food, clothing, and shelter. This emancipation is effected by machinery. Machinery has quadrupled the efficiency of human industry within the past half-century. There is one general training especially needed to prepare the generations of men who are to act as directors of machinery and managers of the business that depends upon it; this training is in the habits of punctuality and regularity.

Only by obedience to these abstract, external laws of time and place may we achieve a social combination complete enough to free us from thralldom to our physical wants and necessities.

(c) Silence is the third of these semi-mechanical duties. It is the basis for the culture of internality or reflection—the soil in which thought grows.

The pupil is therefore taught habits of silence—to restrain his natural animal impulse to prate and chatter. All ascent above his animal nature arises through this ability to hold back the mind from utterance of the immediate impulse. The first impression must be corrected by the second. Combination and generalization are required to reach deep and wide truths, and these depend upon this habit of silence.

This silence in the school-room has a two-fold significance: it is necessary in order that there may be no distraction of the attention of others from their work; secondly, it is a direct discipline in the art of combining the diffused and feeble efforts of the pupil himself.

These mechanical duties constitute an elementary training in morals without which it is exceedingly difficult to build any superstructure of moral character whatever. Moral education therefore must begin in merely mechanical obedience and develop gradually out of this stage towards that of individual responsibility.

The higher order of moral duties falls into two classes—those that relate to the individual himself, and those that relate to his fellows:

(a) Duties to self. These are, (1) physical, and concern cleanliness, neatness in person and clothing, temperance, and moderation in the gratification of the animal appetites and passions. The school can and does teach cleanliness and

neatness, but it has less power over the pupil in regard to temperance. It can teach him self-control and self-sacrifice in the three disciplines already named — punctuality, regularity, and silence — and in so far it may free him from thralldom to the body in other respects. It can and does labor efficiently against obscenity and profanity in language.

(2) Self-culture. This duty belongs especially to the school. All of its lessons contribute to the pupil's self-culture. By its discipline it gives him control over himself and ability to combine with his fellow-men; by its instruction it gives him knowledge of the world of nature and man. This duty corresponds nearly to the one named Prudence in ancient ethical systems. The Christian Fathers discuss four cardinal virtues — Temperance, Prudence, Fortitude, and Justice. Prudence places the individual above and beyond his present moment, as it were, letting him stand over himself, watching and directing himself. Man is a two-fold being, having a particular, special self, and a general nature, his ideal self, the possibility of perfection. Self-culture stands for the theoretical or intellectual side of this cardinal virtue of Prudence, while industry is its practical side.

(3) Industry. This virtue means devotion to one's calling or business. Each one owes it to himself to have some business and to be industrious. The good school does not tolerate idleness. It has the most efficient means of securing industry from its pupils. Each one has a definite task scrupulously adjusted to his capacity, and he will be held responsible for its performance.

Is there any better training yet devised to educate youth into industry, and its concomitants of sincerity, earnestness, simplicity, perseverance, patience, faithful-

ness, and reliability, than the school method of requiring work in definite amounts and at definite times and of an approved quality?

The pupil has provided for him a business or vocation. By industry and self-sacrifice the pupil is initiated into a third of the cardinal virtues — fortitude.

(b) Duties to others. Duties to self rest on the consciousness of a higher nature in the individual and of the duty of bringing out and realizing this higher nature. Duties to others recognize this higher ideal nature as something general, and hence as also the true inward self of our fellow-men. This ideal of man we are conscious that we realize only very imperfectly, and yet it is the fact that we have the possibility of realizing a higher ideal in ourselves that gives us our value above animals and plants. In our fellow-men we see revelations of this ideal nature that we have not yet realized ourselves. Each one possesses some special gift or quality that helps us to know ourselves. The experience of each man is a contribution towards our own self-knowledge, and vicariously aids us without our being obliged to pay for it in the pain and suffering that the original experience cost. Inasmuch as our ideal can be realized only through this aid from our fellow-men, the virtues that enable us to combine with others and form institutions precede in importance the mechanical virtues.

There are three classes of duties towards others:

(1) Courtesy, — including all forms of politeness, good breeding, urbanity, decorum, modesty, respect for public opinion, liberality, magnanimity, etc., etc., described under various names by Aristotle and others after him. The essence of this virtue consists in the resolution to see in others only the ideal of humanity, and to ignore any and all defects that may be apparent.

Courtesy in many of its forms is readily taught in school. Its teaching is often marred by the manner of the teacher, which may be sour and surly, or petulant and fault-finding. The importance of this virtue both to its possessor and to all his fellows demands a more careful attention on the part of school-managers to secure its presence in the school-room.

(2) Justice: this is recognized as the chief in the family of secular virtues. It has several forms or species, as, for example, (a) honesty, the fair dealing with others, respect for their rights of person and property and reputation; (b) truth-telling or honesty in speech — honesty itself being truth-acting. Such names as integrity, uprightness, righteousness, express further distinctions that belong to this staunch virtue.

Justice, like courtesy in the fact that it looks upon the ideal of the individual, is unlike courtesy in the fact that it looks upon the deed of the individual in a very strict and business-like way, and measures its defects by the high standard of the ideal. According to the principle of justice, each one receives in proportion to his deeds and not in proportion to his possibilities, wishes, or unrealized aspirations. All individuals are ideally equal in the essence of their humanity; but justice will return upon each the equivalent of his deed only. If it be a crime, Justice returns it upon the doer as a limitation of his personal freedom or property. The school is perhaps more effective in teaching the forms of justice than in teaching those of courtesy. Truth-telling, especially, receives the full emphasis of all the power of school discipline. Every lesson is an exercise in digging out and closely defining the truth — in extending the realm of clearness and certainty further into the region of ignorance and guess-

work. How careful the pupil is compelled to be with his statements in the recitation and with his previous preparation!

Justice, in discovering the exact performance of each pupil and giving him recognition for it, may give place to injustice in case of carelessness on the part of the teacher. Such carelessness may suffer the weeds of lying and deceit to grow up, and it may allow the dishonest pupil to gather the fruits of honesty and truth, and thus it may offer a premium for fraud. The school may thus furnish an immoral education, notwithstanding its great opportunities to inculcate this noble virtue of honesty. The private individual must not be permitted to return the evil deed upon the doer, for that would be revenge, and hence a new crime. All personality and self-interest must be sifted out before justice can be done the criminal. Hence we have another virtue, — that of respect for law.

(3) Respect for law, as the only means of protecting the innocent and punishing the guilty, is the complement of justice. It looks upon the ideal as realized not in an individual man, but in an institution represented in the person of an executive officer, who is supported with legislative and judicial powers.

The school, when governed by an arbitrary and tyrannical teacher, is a fearfully demoralizing influence in a community. The law-abiding virtue is weakened and the whole troop of lesser virtues take their flight and give admittance to passions and appetites. But the teacher may teach respect for law very thoroughly, on the other hand. In this matter a great change has been wrought in the methods of discipline in later years. Corporal punishment has been very largely disused. It is clear that with frequent and severe corporal punishment it is

next to impossible to retain genuine respect for law. Only the very rare teacher can succeed in this. Punishment through the sense of honor has therefore superseded for the most part in our best schools the use of the rod. It is easy now to find the school admirably disciplined and its pupils enthusiastic and law-abiding — governed entirely without the use of corporal punishment. The school possesses very great advantages over the family in the matter of teaching respect for law. The parent is too near the child, too personal, to teach him this lesson.

(c) Religious Duties. At this point we approach the province of religious duties. Higher than the properly moral duties, or at least higher than the secular or cardinal virtues, are certain ones which are called "celestial" virtues by the theologians. These are faith, hope, charity, and their special modifications. The question may arise whether any instruction in these duties can be given which is not at the same time sectarian? An affirmative answer will have to show only that the essential scope of these virtues has a secular meaning and that the secular meaning is more fundamental than in the case of the so-called cardinal virtues.

(1) Faith in a theologic sense means the true knowledge of the first principle of the universe. Everybody presupposes some theory or view of the world, its origin and destiny, in all his practical and theoretical dealing with it. Christendom assumes a personal creator of divine human nature who admits man to grace in such a way that he is not destroyed by the results of his essential imperfection, but is redeemed in some special manner. The Buddhist and Brahmin think that finitude and imperfection are utterly incompatible with the divine being, and hence that the things of the world cannot be permitted to

have real existence. They exist only in our fancy. Here is no grace, no redemption. Nature is not a real existence to such a theory, and hence there can be no natural science. In Christian countries the prevailing institutions and confessions of faith recognize this belief in a divine-human God of Grace, and their people more or less cultivate science. Some persons theoretically deny this belief, but cling to science, which is itself based on the deep-lying assumption that the world is a manifestation of Reason. Such skeptics have not yet measured the consequences of their theories, and for our purposes may be said to belong to the faith inasmuch as the reality of a finite world presuppose a personal God whose essential attribute is Grace. The agnostic, too, is strenuous in acknowledging the practical importance of the code of moral duties.

The prevailing view of the world in Christian countries is very properly called Faith, inasmuch as it is not a view pieced together from the experience of the senses nor a product of individual reflection unaided by the deep intuitions of the spiritual seers of the race.

Faith is a secular virtue as well as a theological virtue, and whoever teaches another view of the world — that is to say, he who teaches that man is not immortal, and that nature does not reveal the divine reason — teaches a doctrine subversive of faith in this peculiar sense, and also subversive of man's life in all that makes it worth living.

(2) Hope, the second theological virtue, is the practical side of faith. Faith is not properly the belief in *some* theory of the world, but in the particular theory of the world that Christianity teaches. So Hope is not a mere anticipation of some future event, but the firm expectation that

the destiny of the world is in accordance with the scheme of faith, no matter how much any present appearances may be against it. Thus the individual acts upon this conviction. It is the basis of the highest practical doing in this world. A teacher may show faith and hope in the views of the world which he expresses, and in his dealings with his school, in his teaching of history, in his comments on the reading lesson, in his treatment of the aspirations of his pupils. Although none of these things may be consciously traced to their source by the pupils, yet their instinct will discover the genuine faith and hope. Nothing is so difficult to conceal as one's conviction in regard to the origin and destiny of the world and of man.

(3) Finally, Charity is the highest of these virtues, in the sense that it is the concrete embodiment and application of that view of the world which Faith and Hope establish.

The world is made and governed by divine grace, and that grace will triumph in the world. Hence, says the individual, "Let me be filled with this principle and hold within myself this divine feeling of grace towards all fellow-creatures." Charity is therefore not almsgiving, but a devotion to others. "Sell all thou hast . . . and follow me." Faith perceives the principle; Hope believes in it where it is not yet visible; Charity sets it up in the soul and lives it. There might be conceived a faith or insight into this principle of divine grace and a hope that should trust it where not seen, and there be in the possessor of the faith and hope a lack of charity. In that case the individual would acknowledge the principle everywhere, but would not admit it into himself. With Charity all other virtues are implied — even Justice.

While courtesy acts towards men as if they were

ideally perfect and had no defects; while justice holds each man responsible for the perfect accordance of his deed with his ideally perfect nature, and makes no allowance for immaturity; charity sees both the ideal perfection and the real imperfection, and does not condemn but offers to help the other, and is willing and glad to sacrifice itself to assist the imperfect struggle towards perfection.

The highest virtue, Charity, has, of all the virtues, the largest family of synonyms: humility, considerateness, heroism, gratitude, friendliness, and various shades of love in the family (parental and filial, fraternal and conjugal), sympathy, pity, benevolence, kindness, toleration, patriotism, generosity, public spirit, philanthropy, beneficence, concord, harmony, peaceableness, tenderness, forgiveness, mercy, grace, long-suffering, etc., etc.

The typical form of this virtue as it may be cultivated in school is known under the name of kindness. A spirit of true kindness, if it can be made to pervade a school, becomes the highest fountain of virtue. That such a spirit can exist in a school as an emanation from a teacher we know from many a saintly example that has walked in the path of the great Teacher.

From the definition of this principle it is easy to deduce a verdict against all those systems of rivalry and emulation in school which stimulate ambition beyond the limits of general competition to the point of selfishness. Selfishness is the root of mortal sin, as theologians tell us, and the lowest type of it is cold, unfeeling pride, while envy is the type next to it.

Returning to our first question, we repeat :

In a State which has no established Church and in a system of public schools that is not permitted to be under

the control of sects or denominations, what shall be the fate of dogmatic instruction in morals — especially instruction in that part of morals which rests upon the celestial virtues? Of course the problem is still a simple one in parochial schools and denominational schools. But it is not proper for us to ignore the dangers incurred even in strictly parochial schools. The more strict the denominational control, the less likely is there to pervade the school that spirit of tolerance and charity towards others which is the acknowledged deepest tap-root of the virtues. Were the community homogeneous in its confession of faith, religious instruction could still properly remain in school. The movement of American society is not, however, in that direction, and it is quite likely that the Church must see formal religious instruction, even to the ceremony of reading the Bible, leave the common schools altogether. But a formal reading of the Bible "without note or comment," or a formal prayer on opening the school, is surely not religious or moral instruction in any such efficient sense as to warrant any Christian man or woman in sitting down in content and claiming a religious hold on the popular education. Such a delusive content is indeed too prevalent. There never was a time when the need was greater for a wide-spread evangelical movement to begin, that shall make real once more the faith that has well-nigh become a mere formula. A Robert Raikes now, and here, to give new vitality to the Sunday-school movement; a concerted series of movements like that of Dr. Vincent, is needed.

It is not the undoing of the separation of Church and State even in the common-school, nor the struggle to maintain a frigid and bloodless "non-sectarian," so-called, religion in our schools that is to succeed or do any

good. It is for the churches to rouse from danger and proselyte by new means and appliances as well adapted to the present day as the Sunday-school movement was seventy years ago.

It is for the teachers not to claim the right to introduce formal religious ceremonies, but to make all their teaching glow with a genuine faith, hope, and charity, so that pupils will catch from them their view of the world as the only one that satisfies the heart and the intellect and the will.

Let us note the fact that in the mechanical virtues, so important to making good citizens, the training in the schools is already admirable. Human freedom is realized not by the unaided effort of the individual, but by his concerted or combined effort in organized institutions like the State and Civil Society. Those mechanical virtues make possible the help of the individual in this combination, and fit him for the modern world now bent on the conquest of nature.

The social virtues, justice, politeness, and obedience to the law, may be equally well provided for, although in fact they are not successfully taught in every school.

The celestial virtues can be taught by teachers inspired by those virtues, and by none others. The empty profession of such virtues without the devotion of the life to them, is likely in the school even more than elsewhere to produce the well-known practical result of atheism.

In conclusion let us call up the main principles and repeat them in their briefest expression :

1. Moral education is a training in habits, and not an inculcation of mere theoretical views.
2. Mechanical disciplines are indispensable as an elementary basis of moral character.

3. Lax discipline in a school saps the moral character of the pupil. It allows him to work merely as he pleases, and he never can reënforce his feeble will by regularity, punctuality, and systematic industry. He grows up in habits of whispering and other species of intermeddling with his fellow-pupils, neither doing what is reasonable himself nor allowing others to do it. Never having subdued himself he will never subdue the world of chaos, or any part of it as his life work, but will have to be subdued by external constraint on the part of his fellow-men.

4. Too strict discipline, on the other hand, undermines moral character by emphasizing too much the mechanical duties, and especially the phase of obedience to authority, and it leaves the pupil in a state of perennial minority. He does not assimilate the law of duty and make it his own. The law is not written on his heart, but is written on his lips only. He fears it but does not love it. The tyrant teacher produces hypocrisy and deceit in his pupils. All manner of fraud germinates in attempts to cover up short-comings from the eye of the teacher. Even where there is simple, implicit obedience instead of fraud and the like, there is no independence and strength of character developed.

5. The best help that one can give his fellows is that which enables them to help themselves. The best school is that which makes the pupils able to teach themselves. The best instruction in morality makes the pupil a law unto himself.

Hence strictness, which is indispensable, must be tempered by such devices as cause the pupil to love, to obey the law for the law's sake.

III.

HIGH SCHOOLS.

BY HON. J. W. DICKINSON, SEC. MASS. BOARD OF EDUCATION.

In the Massachusetts System of Public Schools there are three distinct grades. These are distinguished from one another by the kinds of knowledge taught in them, and by the kinds of mental activity which the pursuit of the knowledge requires. The most elementary knowledge taught has for its objects, facts relating to the external world and the language by which the knowledge may be represented. The mental activity required to put the mind in possession of this knowledge is that which may be produced by the observing powers.

The school which limits its instruction to such knowledge and such exercises of the faculties, is the Primary school of our system. The acquisitions made in the primary schools should prepare the minds of the children with a sufficient knowledge of the qualities of things, and of language, and with sufficient mental strength to enable them to distinguish objects by means of their qualities. This last work joined to the cultivation of the acquisitive and conservative powers, is the peculiar work of the Intermediate schools. Intermediate instruction should cover the ground between the Primary and the High Schools.

The High School stands at the head of our system. In it the students are expected to use the elementary

knowledge obtained in the schools below, as occasions for a scientific classification of all objects of thought. Here the causes of things are to be the constant object of inquiry, and reasons are to be given for all judgments that are formed and expressed. In language, general abstract terms are to be used in place of individual concrete names and general definitions are to be substituted for simple statements of facts. The High School courses of studies should be adapted to call into special activity the reflective powers of the mind — the powers that generalize and reason.

The Primary School calling the attention of its pupils to individual objects considered as individuals, and to their qualities considered as qualities of distinct individuals, leads the mind to its most elementary knowledge, and to the most elementary exercise of its faculties.

The Intermediate School, furnishing an opportunity for the comparison of objects with one another by means of their discovered resemblances and differences, and for the natural exercise of the representative as well as the presentative powers, makes use of the knowledge and power gained in the Primary School, and prepares the learner's mind for future scientific study.

The High School receiving the learners who have had an experience in observing individual objects of thought, and comparing them with one another and directing these learners to collect the objects into classes, is able to teach what is universally true by calling into activity the powers that generalize and reason. These three grades of schools taken together form a complete whole, with the High School at the head of the system. To omit one of the grades of schools now included would leave the system in fragments and wanting in an essential part.

Origin of High Schools.

The Grammar Schools of the Colonies were planned after a model found in the free Grammar Schools of England.

The royal schools, the prototypes of the colonies, were established in the fifteenth century by the use of funds obtained from the confiscated property of the religious houses then broken up. These schools were partially free. In them the poor and the rich enjoyed the advantages of a most thorough study of the classic languages and the study of other branches of knowledge necessary for admission to the University.

The old Grammar School of England was transplanted in the Massachusetts Colony in 1647 by an act of the general court requiring every township containing one hundred families or householders to set up a Grammar School, whose master should be able to instruct youth so far as they may be fitted for the University. To be fitted for the University was, among other acquirements, to be able to translate any classic author into good English; to speak and write true Latin in verse and prose, and be familiar with the grammatical forms of inflected words.

The term Grammar School, as used in modern times, has lost its ancient signification. It is no longer applied to a school in which the classic languages are the special objects of study, but rather to one holding a middle rank between the Primary and High School and confining its instruction to the English branches of learning.

In 1826 a law was passed in Massachusetts requiring the towns to provide free schools for all the children who may legally attend schools therein. The studies to be pursued in these schools were called the Common English branches of learning. It was also provided that a higher

order of schools should be established in which elementary studies were to be pursued as sciences.

At this time the soul of the old Classic Grammar School of 1647 passed, in a modified form, into the High School of the present day.

Right of the State to support High Schools.

Some have denied the right of the state to compel the support of Secondary or High Schools by a general tax. The same persons admit the right to require the support of Elementary Schools because elementary education is necessary to the well-being of the state. These philosophers have never drawn a very definite line separating from all other knowledge and discipline, that which is necessary for the well-being of the state and of the individual, nor have they been able to tell just where the point is beyond which the state cannot rightfully go in educating its children for their places in a free and highly civilized commonwealth. The reason that no limit has been found is that none exists, except the one established by the ability the people have to pay the tax they impose on themselves for the support of the schools.

If we turn our attention to the true nature of education, and to the relations it holds to civil society and to its individual members, we shall see that the same reasons which urge the support of Primary Schools apply to all other grades with the same force. We shall then learn that the more complete the education of a people, the higher will be their civilization. The people of a free state are supposed to be their own governors. They make their own laws and render a voluntary obedience to them. If they govern themselves well, they must be guided in their acts by intelligence and virtue. Intelli-

gence is the result of a right exercise of the faculties, and virtue is the offspring of a true intelligence.

It requires a common and universal education of the people to make them homogeneous. They cannot act together in harmony unless they have been trained to think alike, and to be conscious of the same wants.

It is the great business of a free people to educate themselves in their own public schools, organized and controlled by their own wisdom and will. To establish a limit, not found in ability to the amount of learning and cultivation a free people may provide for themselves, is to set a boundary to their intelligence and virtue. It is to measure out to them the degree of civilization to which they may attain. It is to determine how permanent and progressive shall be the governments and institutions which a free people have established.

What results are High Schools adapted to accomplish?

The immediate results which our secondary schools are fitted to produce are two, — the communication of general knowledge, and the cultivation of the reflective faculties. The elementary products of the mind have for their objects the simple existence of things. By the term things, is here meant whatever may be the object of consciousness — material objects — language and mental states.

It will be at once seen that elementary knowledge is valuable only as it may become the occasion of general knowledge, or of that activity of the mind which develops the powers of observation and the powers which represent to us our past mental states.

Simple elementary knowledge as an end has no practical value. If we had no power of connecting the facts

we observe with what is likely to be true in all cases, we should be deprived of all foresight, and future events would never become the objects of our thoughts. The proper functions of the High School is not to teach technical knowledge, nor to train its members directly for any of the professions or occupations of practical life. It is good policy for a country or state to provide schools for the accomplishment of these ends. But it is not good policy for the student to enter upon their courses of study until he can bring to them a liberal training of his faculties. At this point we are now in danger of making serious mistakes in forming our ideas of what the public schools should accomplish for the children, before their activities are narrowed to the pursuits of common life. If we direct the eyes and hands of the youth from the first to occupations and trades, their minds like their bodies will become mere machines. Labor of every kind, to be economical and result in a right development, must be produced and directed by intelligence. To pursue a trade simply as a trade will have a tendency to blot out the differences that should exist between the man and the animal, and leave the former to be moved by the same principle of action as the latter, without the inclination or ability to make an intelligent progress. John Stuart Mill said, in his inaugural address, "That men are men before they are lawyers, or physicians, or merchants, or manufacturers, and if you make them sensible men they will make themselves capable and sensible lawyers and physicians." "What professional men should carry away with them from the University is not professional knowledge, but that which should direct the use of professional knowledge, and bring the light of general culture to illuminate the technicalities of any special

pursuit." "Education makes a man a more intelligent shoemaker, if that be his occupation, — not by teaching him how to make shoes, but by the mental strength it gives and the habits it impresses."

The public High Schools will of necessity, and will properly, confine their efforts to the cultivation of general intelligence, and that philosophic spirit which will bring the youth of the country to their particular pursuits in life with strong minds and good hearts. In doing this with all that is implied in it, they will accomplish enough — for they will produce an education which will prevent a man from being lost in his business. They will furnish him with a knowledge of principles which will be a source of endless progress in all the affairs of practical life. They will prevent him from placing a higher value on the means of living than on the life itself. No greater or more disastrous fallacy can effect the judgments of men than the one which leads them to believe that the best way to train the young into skillful laborers of any kind is by putting them at once to labor. The sure effect of narrowing their experiences to the formalities of any occupation, will be to deprive them of the power of discovering and using the general principles upon which the intelligent pursuits of an occupation or profession depends. A liberal education has always been considered necessary to a respectable position in the professions, but unnecessary to success in the manual occupations of life.

Young people intending to go into business, as it is called, frequently leave school before their courses of study are completed, believing that the abstractions of science and the refinements of literature have no appropriate place among the acquisitions of a business man.

The experiences of intelligent business men are lead-

ing them to change their opinion, and now they are choosing the graduates of the High School and the Colleges rather than the uneducated for the business capacity which a generous culture is adapted to produce. Secondary instruction, they find, is as necessary to guide the hands to successful physical as it is to guide the faculties to successful mental labor.

A knowledge of general principles and of the best means for the accomplishment of desired ends, holds the same relation to success in business as it does to success in the prosecution of any one of the learned professions.

The artisan as well as the artist, the business man as well as the professional, the private citizen as well as the law maker, must be lifted above the mere mechanical operations of their work by a knowledge of causes, and by skill in the application of principles, or their activity will be like the going round of the wheels of a mill, not being directed by foresight nor urged on by the vision of final results.

This leads me to say a few words concerning the value to practical men of some of the branches of study presented in the secondary school.

The value of a branch of learning depends upon two things: first, upon the relation the knowledge gained by its study holds to other knowledge, and second, upon its utility as a means of mental discipline.

There is a strange controversy going on among educators of the present day on the question whether secondary education should take on a literary or a scientific character. The dispute is carried on more by a reference to individual experiences than to any general principle, and so will end in a wrangle of words without illuminating any doctrine or furnishing a guide to any practice.

Let it end in that way — the result of the dispute cannot be of much consequence, for it is well known by every successful thinker on the subject that the study of literature and of science should never be separated in any complete course of instruction. A scientific education prepares the mind to think with certainty, and a literary education enables the mind to express its thoughts with propriety. Science is general knowledge of things. Literature is a knowledge of language considered to be signs of knowledge. There is a science of language ; it directs our attention to those forms and arrangements of words by the use of which they are constructed into propositions, and to those styles of discourse best adapted to express our mental states. At first the young pupil will be set to observing things and in associating his acquired ideas with their proper signs. This he will do under the topic, Language Lessons. Later in his course, and by a natural process, the mind of the learner will turn to the construction of the language he has before employed, and will make the construction the exclusive object of thought. This he will do under the scientific topic called Grammar. Later still he will turn his attention to the right use of figurative language, and to the properties of style, which every author stamps upon his own speech and which are expressions of himself and his times. Now he studies the rhetoric of language and gains a knowledge of those general principles that guide to its right use. Combining his knowledge of the facts of language with his knowledge of the universal principles that regulate its construction and use, he will be prepared to direct his attention to its literature and learn from it what the past has contributed to human wisdom and human progress. Such a study must pro-

duce the most useful knowledge and the most productive discipline, for a knowledge of human experience is more valuable to human beings than a knowledge of the qualities of matter, and the discipline derived from thinking of the operations of the human mind must be of more practical consequence than that derived from thinking of the changes produced in physical things.

If what has been said is true, it will follow that the the literature of a philosophic language, communicating important knowledge, must constitute a most productive subject of study. This leads us to inquire for those languages and that literature which offer to the student the best occasions of mental discipline and the most prolific source of human knowledge.

Mr. Mill assigns this place in the most emphatic manner to the Greek and Latin, and says that his position is justified by the great value in education of knowing well some other cultivated language and literature than one's own, and by the peculiar value of those particular languages and literatures. One reason for learning a foreign language is found in the well-known truth that human error is partly due to the tendency men have of using words without associating them with definite ideas. The more familiar the form of the words the more likely is this to be done. There can be but little tendency to use foreign terms in this way. The act of translating a foreign language into one's native speech requires a study for the meaning of both the foreign and the native words used in the translation. Such study rightly conducted is the best means of correcting the common and pernicious habit of using words with little or no knowledge of their significance. For this purpose an ancient is better than a modern language, as ancient

thought and forms of speech are less familiar than modern, and as some ancient languages excel any modern in the perfection and complication of their structure.

While some ancient languages are to be chosen as a means of discipline, those should be selected that are the most philosophical in their construction, and at the same time bear in their elements and genius a not too distant relation to our own language.

By the concurrent opinion of a large majority of those best able to judge, the Greek and the Latin languages have been chosen as the best means of mental discipline, and of producing that important mental habit of making a careful distinction between words and things. The study of the grammar of a language, if rightly conducted, directs attention: first, to those words and forms of words by which the subject of a discourse is named and by which affirmations are made. Second, it brings before the mind those words and forms which express the qualities of objects and the attributes of actions. It also presents those words which bind other words together into clauses, propositions, and discourse.

A language will be perfect in proportion as it supplies a distinct form for the name of every distinct object, and act, and quality, and relation. The mental habit of making a nice distinction between a word and the thing it names, is more surely formed and more successfully cultivated by the use of a perfect language. This affords a reason why the grammatical study of the classic languages, especially of the Greek, should be encouraged in all our higher institutions of learning.

In the study of the classic authors, we shall be led by a natural process from the grammar of their language to its style. In this study we shall find models most wor-

thy to be imitated. No one can study the style of the great Greek and Roman authors without learning the value of skill in the *use* of language; of using no more words than one has ideas to express by them; of selecting appropriate words; of putting the right words in the right places, and of avoiding all solecisms.

The student of the classic style will learn also that there may be such a perfect use of language as to conceal the perfection, and leave the hearer or reader to turn his whole attention to the ideas expressed. No ancient classic writer of good reputation ever thought of constructing his sentences so as to divert the mind from the sense to the style.

It is for these reasons that modern writers do well to study the ancient forms of speech. We may mark the decline of style in writing as we do the decline of style in the imitative arts, by the use of the excess of ornament for its own sake. The orator or writer who turns the attention of the hearer or reader from the subject of discourse to the author or to his style, has made a wretched failure.

Good sense in writing and speaking, as in human conduct, is shown by following nature or by concealing art. The effect of the study of ancient models will lead the true scholar to despise all ornament used to conceal deformity or used as an end itself. If we turn from the grammar of the classic languages and from the style employed by ancient authors of good repute to their literature, we shall find other reasons for giving these languages a place in our secondary courses of study.

The objects of human study are of two kinds. One belongs to the material the other to the spiritual world. One directs our attention to changes in matter; the other to the nature and experience of man. In physical science

modern investigators have surpassed the ancients. In all that which pertains to the philosophy of human life we do well to refer to the wisdom of ancient times. We do well, even in this progressive age, to go back to the ancient historians, philosophers, orators, and poets, for instruction in ethics and politics, and in the philosophy of education.

Mill says that "human invention has never produced anything so valuable in the way of stimulation and of discipline to the inquiring intellect as the dialectics of the ancients, of which many of the works of Aristotle illustrate the theory, and those of Plato exhibit the practice.

"No modern writing comes near to these in teaching, both by precept and example, the way to investigate truth, on subjects the most difficult to comprehend and the most important to be known. To question all things; never to turn away from any difficulty; to accept no doctrine either from ourselves or from other people without a rigid scrutiny, letting no fallacy, or incoherence, or confusion of thought, slip by unperceived; above all to insist upon having the meaning of a word clearly understood before using it, and the meaning of a proposition before assenting to it:—these are the lessons we learn from the ancient dialecticians."

They inspire in our minds an enthusiastic love for the highest truth, and at the same time, they exhibit to us the spirit and the method we should employ in its pursuit. We must enter into the thought of ancient times through ancient forms of speech. Translations inform us what modern writers think of these things, but they fall far short of unfolding to us the true spirit and nature of ancient ideas and ancient civilizations.

The arguments against the general study of the classic

languages are old and they have been many times refuted by arguments drawn from reason and experience. They return again as educational ideas make their periodic revolutions to be again refuted, and put to rest until the history of their refutation has been again forgotten.

A knowledge of ancient civilization is necessary to freedom and to progress. A true scholarship and a right temper of the mind are best secured by a philosophic study of those objects of thought that are related to the nature and history of man. All truth that is of any final importance to us is of ourselves, and of our relations to God and to our fellows. A knowledge of ourselves includes a knowledge of the individual and of the race. An exclusive study of material things makes the student hard and selfish and full of conceit. It turns his attention away from the fact, that each period of our human life is a probation for the period that is to follow, and that all the periods of the present life are a probation for the life that is to be. Hamilton says that nature conceals God, man reveals him. The spirit we bring to the study of nature will make it an expression of infinite wisdom, goodness, and power, or of a fate that is above all human or divine power.

Our free High Schools are the natural products of our civilization. They are necessary to personal freedom and to the well-being of the state. By offering to their members thorough courses of scientific and literary study, they present to them the means of fitting themselves to become their own rulers. If rightfully organized and rightfully conducted they will do what is possible towards directing the people to the highest individual and social good.

IV.

TEACHING GEOGRAPHY BY THE TOPICAL METHOD.*

BY CHAS. F. KING, SUB-MASTER, LEWIS SCHOOL, BOSTON.

Sixty years ago, a young professor almost unknown to fame, announced that he would give, in the University of Berlin, a series of lectures upon *Universal Geography*. So little interest was manifested in the subject, and in the young man, that he had at first not a single hearer. Such a change, however, took place during the next three years that the largest hall obtainable could not contain his admiring listeners. This professor was Ritter, the greatest of modern geographers. One of his pupils at this time was Arnold Guyot who has done for this country in part at least what Ritter did for Germany. If to these two names be added those of Humboldt and Keith Johnson, then the names of the four most eminent geographers of modern times will have been pronounced. In order to learn correct methods of teaching this subject, we cannot do better than to study the writings and lives of these men. The "Life of Ritter," by Gage, a small book of two hundred and fifty pages, is strongly recommended.

The teaching of geography will be greatly improved by remembering the following principles : —

Geography is a noble study, worthy of much time and

* Only an abstract of this lecture is furnished, as the author expects to publish a book on the subject. — ED.

thought. A great difference should always, in this study, be maintained by the teacher between the more important and the less important. The more important is not *statistics* and *locality* but *nature* and *humanity*. Pupils should be led in geography as well as in other studies, from the known to the unknown; from home to foreign countries. A wise teacher will make a large use of the eyes, the pen, pencil, and blank-book. A hill should not be described in words when a picture will tell the children more in a shorter time; nor a picture shown when a real hill stands beside the school-house. Pupils should be taught to observe nature. The teacher cannot teach well without careful preparation. The teacher must be free from the text-book. Freedom from the text-book is best obtained by teaching *topically*.

Teaching topically requires a list of topics. [A printed list of topics with a list of three hundred books on geography were distributed to the audience before the lecture commenced.] The list of topics the speaker said is open to criticism. Some teachers would doubtless prefer a different arrangement of the topics; others would differ about the sub-divisions; all teachers in the lower classes would prefer a shorter and less comprehensive list. Each teacher can take this list, compare it with Guyot's more philosophical one, and then prepare a list such as is best suited to his tastes and circumstances. The topical method can be used in all the classes, even the lowest. This has been proved by the successful experiments of numerous teachers in Boston and elsewhere.

Scholars are interested in the idea of working with the teacher to make a better geography than the text-book, hence the necessity of each one having a good blank-book in which to write out the collected facts; also a list of

topics to be followed in studying each grand division or section of a country. I do not believe in the study of every separate state in the Union, or of every separate country in a grand division, because there is not time for it, and because each state or section is not sufficiently *sui generis*.

The teacher's desk should be well supplied with various geographies, reference books, encyclopædias, gazetteers, and books of travel. A list of the books of travel to be found in the nearest public library *with the library numbers*, should be written on the blackboard or in some way placed before the scholars, who should be urged to obtain these books, read them, and report to the class as time and opportunity will allow.

Guyot's books will be found very useful in the study of *position*, etc. The comparative size of a country should receive more attention than the absolute size. The size of the different grand divisions can be readily comprehended by the pupils when the countries are drawn upon the same scale on one large sheet of manilla paper.

The prime object of map-drawing is to aid the memory, and that is best accomplished by the pupils making a *progressive* map, that is, by filling up a map as they proceed in the study of the country under consideration. As soon as the class have considered position, shape, etc., let them draw upon suitable paper, the outlines of the country; after the surface has been studied, the mountains should be added to this outline, and then the rivers, natural divisions, capitals, towns, the names of all of these important places being written or printed as they are drawn; and finally the productions, vegetation and animals, written or printed in their appropriate places.

Simple outline maps for the teacher are very useful, especially at the beginning of the study of a country, such maps as can be quickly drawn upon the board by the aid of paper stencils, invented, made and sold by Edward Shepard, Newark, N. J., or by the aid of transfer maps, suggested by Prof. Adams, Worcester Normal School, Mass. Better than either of these methods, are outline maps painted in oil upon a cloth black-board, which cloth black-board can be seen at the rooms of the Boston School Supply Co., 15 Bromfield Street. Apgar's method of map-drawing as explained in Warren's and Swinton's geographies, is the best because the simplest, and requiring the least amount of memorizing.

Surface is a very important subject because so many other topics are closely connected with it. The molding-board is an important help in the lower classes; physical maps and profiles for the upper classes. Very great assistance in teaching surface is obtained from the use of Sounenschein and Allen's Relief Atlas, which contains thirty-one embossed or raised maps of different countries. It is remarkable how much help is given to a pupil by once looking upon any one of these maps. Physical geographies such as Guyot's, Geikie's, Maury's and Johnston's; Glimpses of the Earth by Blackiston, Earth and Man by Guyot, The Earth by Reclus, Hayden's and Wheeler's reports, are some of the books to be consulted in studying this subject of surface for North America.

If the pupils thoroughly understand surface, *drainage*, the next topic, will be quickly and easily comprehended. The slope determines the drainage; the drainage is the indication of the slope. In North America for instance, there are three water-partings, viz.:—The Rocky Mountains, the Appalachians, and the Height of Land. The

climax of these water-sheds is found in or near the South Pass. By observing the course of the rivers from this central elevation, the pupils can learn for themselves the different river systems. The tedium of learning the names and localities of the mountains and rivers is greatly relieved by taking them in some particular order.

Climate deserves much more careful attention than it generally receives in the ordinary common school geography. The principal facts systematically arranged in some such way as is given in Swinton's geography, should be placed upon the board by the teacher, and copied by the pupils in their blank-books, for study and reference, but these bare facts need to be made interesting and enjoyable to the scholars by stories, anecdotes, personal reminiscences, and facts only obtained in books of travel, collected and contributed for the benefit of the class by teacher and pupil.

So little attention has been given in most geographies to *life*, the most interesting and important topic in the whole list, that the teacher needs to give the class especial help when they take up this subject. Miss Hall's "Our World," No. 2, can now be consulted with profit. The teacher will find good attention given by his class if he relates in familiar language the accounts of his travels among the people and places under consideration. Objects from the different countries brought by the pupils will greatly increase the interest. The teacher will do well to read suitable selections from "Seven Little Sisters," Scribner's or Johonnot's geographical readers, newspaper scrap-books, books of travel, etc. Whenever selections are read the pupils should be required to reproduce them in compositions or talks. A much better way is for the pupils to read to the teacher and the class from the books

of travel they have been reading at home. With a little help from the teacher, this exercise can be made extremely interesting and profitable.

One of the most practical ways of interesting the class, under the head of *life* is derived from the judicious use of pictures. Objects are, of course, far better for illustrations than pictures, but pictures can be more extensively employed, and are more easily obtained. Pictures convey to the young more correct ideas than words, stimulate the imagination and convey correct information in a short time. Only a few pictures should be shown at one time, and these should always bear upon the topics under consideration. Available pictures can be found in the various geographies, juvenile books of science and travel, adult books of travel, illustrated papers and magazines. These pictures are mostly wood-cuts, and while answering every purpose with small children, are inferior in beauty and accuracy to photographs. Stereoscopic pictures which can now be purchased from sixty cents to three dollars per dozen, can be used with advantage in the school-room, where the stereoscope should be no stranger. An album of a trip round the world, giving one hundred pictures of characteristic cities, is sold for fifty cents. Several teachers in Boston are making picture-albums of unmounted photographs, for use in the school-room. Unmounted photographs suitable for this use are sold by the Soule Photograph Co., Boston, at one dollar and a half to three dollars per dozen. The most perfect pictures for school purposes are of course photographic slides, thrown upon the screen by an oxy-hydrogen lantern, or solar camera. These pictures can be enlarged in the school-room to ten feet square, and can thus be seen by every pupil at the same time. After examining

several stereopticons, cameras, heliostats, porte-lumieres, etc., preference is given to the "School Solar Camera," invented and manufactured by Prof. Charles F. Adams, Normal School, Worcester, Mass., because it is so simple, so strong, and produces with so little trouble such grand pictures.

The topical method would not be considered a success if it did not stand so well the test of hard examinations. The united testimony of all the teachers who have tried teaching geography by topics, is strongly in its favor.

[One of the chief characteristics of this lecture consisted in the elaborate illustrations which accompanied it. One end of the great tabernacle was completely covered with various charts, maps, black-board illustrations, and pictures. Several tables were covered with hundreds of test-papers, books on geography, objects from the different countries, and numerous smaller illustrations pertaining to the teaching of geography, all of which were examined by the audience at the close of the lecture. — Ed.]

V.

SPECIAL PREPARATION FOR CITIZENSHIP.

BY G. H. MARTIN, AGENT OF MASS. BD. OF EDUCATION.

The men who settled New England came here not to get a living, but to found a state. All their early actions are consistent with this purpose and are to be interpreted by it. They were men of rare discernment, men who knew the kind of stuff that states should be built of; and they shaped their early legislation to prepare the stuff, not for the sake of the stuff, but for the sake of the state.

In this spirit they legislated for the children. They required that children should be taught to work, not because industry was good for the child, but because an industrious child was a squared stone fit to be builded into the edifice they were rearing. So they demanded schools. Far-seeing men were these. Their state was to be the bulwark of a Puritan church. But the Puritan church was a child of the intellect. It was born of discussion. From its earliest days it had been forced to maintain by argument its right to exist. Its enemies had not only the advantage of wealth and social distinction; they had almost a monopoly of learning and culture. They had the great schools and the universities. Puritanism, too, was getting into politics, and no shallow politics either, but great deeps whose fountains seemed to be breaking up. What the outcome of it all might be, who could tell?

But one thing was certain: the infant state in the new world would need men who could think as well as work; robust thinkers too. This was what they set up schools for and founded colleges. Theirs was not a paternal government. The paternal idea is not found in the infancy of a state. They did not educate to relieve the parent nor to help the child, but to prepare a generation which should be capable of maintaining the state and defending the church, whatever exigencies might arise.

Their idea of education coincided exactly with John Stuart Mill's definition: "The culture which each generation purposely gives to those who are to be its successors in order to qualify them for at least keeping up, and if possible for raising, the level of improvement which has been attained."

Preparation for citizenship, then, is the true function of the public schools; not preparation for trades, or professions, or business. This forces us to ask, What are the qualifications of a good citizen?

First of all, he must be a good man, industrious and frugal, that he may be self-supporting; honest, that he may merit the public confidence; temperate, that he may not weaken himself or his children. He must not debauch the community by vice, nor disturb its peace by crime. So thought the fathers when, in Massachusetts, they made that famous provision for moral instruction; not because it was the business of the state to make men moral, but because, as they said, these virtues are the basis on which a republican constitution is founded.

Second, the good citizen must be an intelligent man. He should bring to the affairs of life a mind stored with the fruit of a wide observation of men and things. He should have a good judgment, be quick to discern

things that differ, have power to grasp general principles and to apply them to the practical needs of life. All this gives breadth, and lifts above prejudice and pettiness.

Third, he must be a skillful workman. The prosperity of the country and the perpetuity of its institutions demands the full development of all its material resources. This calls for skill. Business enterprises cannot be carried to success by amateurs. The wealth that is in the soil and in the mines will yield itself fully only to experts. The work of the school tends to furnish these qualifications, to make good men, well-trained and intelligent. The sciences, the literature, the mathematics, each in its way and all together are furnishing this *general* preparation for citizenship. We need not less, but more of all these, furnished to more children and for a longer time.

A good citizen must be all that we have said. But a man may be all these and be a very poor citizen. There are thousands of men to-day, good husbands and fathers, great scholars, shrewd, energetic business men, who would let, nay are letting the state drift toward shipwreck. The ship of state is nothing to them compared with their own dug-outs. Some are too nice, some are too busy to meddle with politics. So, by and by, in the lurid glare of sacked and burning buildings, with barricaded streets and the rattle of musketry and the howls of an infuriated mob, politics meddles with them.

It is evident that we have not enumerated all the qualities of the good citizen. The school must do some *special* work over and above the *general* work of which we have spoken. The fathers saw this. Very early they said that the children should be taught the English tongue and a knowledge of the capital laws. Here was embodied both the general and the special preparation for citizenship.

This special preparation should be two-fold. It should include a knowledge of political science, combined with a patriotic spirit. These will furnish to the man the ability and the inclination to do his duty as a citizen of a free republic.

The study of political science should be put upon a broad and generous basis. Now, it is safe to say, not ten per cent of the pupils who leave the public schools of New England, receive any instruction in this direction. Many of the western states do better. In several, the facts of the state government must be taught in every public school. In Massachusetts, such facts are only required in the high school. There the subject is put into a single term in the last year — pushed to the very apex of the educational pyramid, with ninety-nine per cent of the pupils below it. Even this point is bisected. Civil government is only in the English Course, a course which often receives little sympathy from the teachers and is patronized by the weaker students. It is time that we ceased to treat the subject as a luxury and began to deal with it as a necessity. When we do this, a few of the most obvious educational principles will at once occur to us, viz. : — that elementary knowledge should be distinguished from scientific knowledge, that elementary knowledge should be taught in the elementary schools, that the true order of teaching is from the near to the remote, from the well-known to the less-known, from the simple to the complex.

In teaching geography, we have learned to believe that the children's own world contains the great world in miniature. We use the springs the children drink from, the brooks they play in, the hills on which they coast, the rain and snow and fog and cold and heat they feel, the

food they eat, and the clothes they wear. From these we teach the simple ideas of geographical facts and phenomena. Following this method in laying out a course in political science, we shall introduce into the lower schools the facts of local government, beginning with the smallest unit whatever that may be, — in New England, the town or the city. This part of the work will be carried on by oral lessons, the aim of which will be to gather up and arrange in systematic form the results of the pupil's own observation of familiar things. In the course of these lessons some of the fundamental ideas of civil government will be occasioned. Some of these are — the public; the public good; voting; civil officers; the subordination of the individual to the public. Inwoven with these simple relations are some of the most far-reaching principles of political ethics. These should be discovered and magnified and worked into the moral instincts of the pupil. In their code of obligations — to *vote* should rank with to *work* and to *pray*. Cheerfully to share the public burdens of office-holding and tax-paying should be held up as a mark of a good man; to shirk the one or evade the other, should be branded as dishonorable. These are the vital processes of the body politic. If these are feeble, the state loses its virility. When they cease, gangrene begins. The safety of the republic demands that these principles be inwrought into the fibre of those whom the schools are preparing for citizenship. Current politics warns us that the work can begin none too soon.

In a higher grade the facts of the state government will be introduced in the order of the legislative, judicial, and executive departments. The pupils are familiar with some of these facts, and the newspapers may be used to

introduce them to nearly all the others. In making the study objective, the teachers will be helped by collecting and using copies of official papers, official notices, the manuals of the legislatures, and the statutes of the states.

The student of geography passing beyond the limit of his own neighborhood, finds himself in the presence of a larger world, but not altogether a new one. Hills are still hills though they are higher, and the rivers are only streams of water flowing through the land, as were the brooks he waded in. Day and night, summer and winter, wind and rain and sunshine are the same over the continent as in his village. So, in his study of government, there is still a public, only broader; there are civil officers, only serving this larger public. The same obligation to share the burdens rests on the citizens. But the broader relationship occasions new ideas. Chief among them is that of personal rights, life, liberty, and the pursuit of happiness. This leads to the idea of human law for the security of these rights, and then to the conception of civil liberty — as liberty under law.

The lessons here should show by illustrations the various means by which the government of the state endeavors to protect men from each other, the nature of the laws and the mode of administering them. The teacher should exalt the idea of justice — free, speedy, impartial justice, as due to the individual, however humble he may be, and at whatever expense to the public. This is the chief end of the state government.

After such study of the departments and their functions, it will be well to point out the dangers to liberty from the government itself, and this will prepare the way for introducing the Constitution of the State as the great safe-guard of liberty, and the Bill of Rights should be

made a part of the mental furniture of every child. The pupil should be led to see that these are matters in which he has a personal interest. When his understanding has been informed of the ground of these political activities of the state, all his sympathies should be enlisted on the side of right and truth. Then a new obligation will reveal itself — to respect and obey the laws. All this is preparation for citizenship, working upon the intellect through the knowledge of facts and forms, and upon the moral nature through the ideas of obligation.

By showing the necessity for laws and so magnifying the beneficence of civil government, and by showing how the maintenance of these institutions demands the personal interest and activity of all the people, the work preserves from nihilism on the one hand and from political servitude on the other, — the Scylla and Charybdis of popular governments.

If the pupil should leave school at this stage of the work, he would be prepared to assume intelligently almost any of the functions which would be likely to fall to him. Voting for local and state officers, administering local affairs, attending town meetings, caucuses and conventions, and jury-duty constitute the principal part of the political activities of the average citizen. But not all. The first echoes of a Presidential campaign tell us that the average citizen has interests wider than his own state. Again our horizon recedes and we must introduce into the course of study a third series of lessons, — on the National government. The order and method may be the same that have been used, the officers of the three departments, their elections and their duties. The rights and duties which the previous study has made familiar will reappear in the new relationship, and some new ideas will be awakened.

The perils to the liberty of the citizen from his neighbors and from the government itself have already been noticed; now it will be shown that there is peril from foreign nations, and the supreme function of the general government will appear—to protect the community of states from external foes. Just here another and the highest duty of the citizen presents itself,—to devote himself and his property to the defence of the nation. With this the elementary study culminates at the close of the elementary school course.

If the course ends here, as it does for most of the boys, the children will enter upon life with no mean preparation for United States citizenship. They have been taught to live so as to promote the public weal and, if necessary, to die in its behalf.

If it should seem to any that there is no room in the elementary schools for such work, I should not hesitate to say, "Make room." A good accountant is not an equivalent for a good citizen; nor is a good carpenter. The people of this country need political education more than they do industrial education. Twenty thousand patents were issued last year by the United States government. This shows no lack of industrial thinking. But every large city in the country is ruled by its slums.

As a matter of public policy it would be a waste of energy to multiply skilled mechanics by public education and then leave them to be, first the tools and then the victims of any blatant demagogue who chose to trumpet himself as the champion of labor.

What constitutes a state? Not mechanics nor bookkeepers; not lawyers nor doctors, but "men, high-minded men—men who their duty know, and knowing dare maintain."

Before any more advanced work can be pursued profitably there must be a study of history. Looking at the study of history from the standpoint of political science, we can see how large a place it may have in this special preparation for citizenship, and this view will also aid us materially in determining the best method of study. The historian Freeman has expressed the close relation between history and political science by saying, "History is past politics, and politics is present history." To come to the study of history aright we need a different conception of it from that commonly given by the text-book definitions. They call it a narrative of past events. There is nothing here for the mind to grasp, nothing tangible, no unity. To conceive the idea the mind must scatter its energies instead of concentrating them. The history of a nation is the development of that nation. It is a process. It is one thing—an unfolding from a germ. The United States was once contained in a few scattered hamlets along the Atlantic shore. To-day, it is what we see. Its history is the change from *that* to *this*. To study its history is to study this change. To teach its history is to teach *how* that became this and *why*.

This unfolding is along several lines. The nation enlarges its territory, increases its numbers, multiplies its industries, develops its resources, establishes its customs, creates a literature, builds up political institutions, and through all develops a distinctive national character. It is an essential part of his preparation for life that the citizen should know this history, and it should be taught with this end in view. The teacher should understand that the story of the past has no value save as it serves to explain the present.

In the course of the lessons upon the local, state, and

national governments, the question will often arise — Why? Why do we have such institutions as towns, counties, and states? Why do they have such offices with such functions? If the history of the United States has been properly taught in the grammar schools, these questions have been answered. The pupils saw the early settlers of New England clustered around the meeting-house, and early choosing men to manage “ye prudentials;” and they saw the wealthy planters scattering themselves along the rivers of Virginia, and laying the foundations for a widely different political system. They saw the infant colonies early legislating for themselves in representative assemblies; they watched the growth of the spirit of independence; they saw the separation from the mother-country, and the slow development of the Union through colonial leagues, committees of correspondence, Continental Congresses, the Confederation; and the Constitution. This story is *one*, not *many*. Before the pupils leave the grammar school, they should be led to see it as one, and to see its relations to their study of government.

But this study only furnishes the immediate causes of the present institutions. The high school should carry on the work with the same end and in the same spirit.

There should be first a careful study of English history. We are coming to understand that the line which separates American from English history is an imaginary one. When we look for it we cannot find it. The story of our nation's development did not begin at Plymouth Rock and Jamestown, though in arranging our school work we assume it to do so. For more than a thousand years American history was in English history, as the flower is in the bud. The struggle against absolutism, which gave us independence, did not begin at Concord Bridge; had

there been no Runnymede there would have been no Bunker Hill. John Hampden prepared the way for George Washington. Before we can make our own the affirmation of our poet —

“ We know what master laid thy keel,
What workmen wrought thy ribs of steel,
Who made each mast and sail and rope,
What anvils rang, what hammers beat,
In what a forge and what a heat,
Were shaped the anchors of thy hope ” —

we must include in our thought all English history.

Our representative system, duality in legislative bodies, parliamentary law, executive limitation on law-making, legislative limitations on the executive, organizations for administering justice, the county and the courts and their officers, the modes of legal practice, the principles of judicial interpretation, those formal declarations of the rights of citizens embodied in our state and national constitutions — all these had their development and came to maturity in England, and were transplanted bodily. Magna Charta belongs to American as much as to English history.

For the origin of the town idea, a more careful study of the “ Making of England ” is necessary. The New England people in setting up their local government, instinctively adopted ancient Germanic customs which once flourished in England, but which long years of Norman misrule had almost effaced. The aim in the teaching of English history in the high schools should be to explain all these relations. If this be neglected there can be little excuse for teaching it.

Next in the course would properly come the study of the history of Greece and Rome. While here, as always,

the object of thought should be the development of the people, certain features of the political development should be studied with especial care: the growth of the Demos at Athens, the career of Pericles, the restrictive legislation of Sparta, the Achæan and Ætolian leagues, the organization of the Roman republic, the growth of democratic influence, the grandeur of the senate as shown in the Hannibalic war, the absence of representation as the empire extended, the nature and the outcome of the Gracchan revolution, the character of Cæsarism, the form and spirit of the monarchy. There are facts of history, and facts. Ten thousand things *may* be learned, these *must* be, if the work is to bear on American citizenship.

In the subsequent study of mediæval and modern history, again some things must be emphasized: the nature and influence of feudalism, the growth of towns, the rise of representative assemblies, the Italian republics, the Renaissance, the Protestant Revolution, the Ancient Regime, the northern leagues, the Swiss confederation, the Dutch republic, the unification of Italy and Germany.

Such history as this cannot be studied with profit by the average high school class unless the pupil has had preparatory instruction in elementary politics. But following such instruction, much may be accomplished.

Following this work in history, and crowning the course, should come a careful analytical study of the Constitution of the United States. Toward this all the work has been tending. Every teacher of history has had this in view in shaping and carrying on his work. All the materials which the students have been gathering through all their course becomes useful here. We may get a hint of this by reading the Federalist papers. What immense resources of historical knowledge have

the writers drawn upon in explaining and illustrating the provisions of the constitution! The historical work in schools should thus richly endow the graduating student; so doing, it would furnish some preparation for citizenship. But this preparation is chiefly intellectual; an Arnold, a Burr, a Davis may have it all.

Besides this equipment the good citizen is a *patriot*. He loves his country, and serves it because he loves it. Some responsibility rests upon the schools for the culture of this virtue. There is an instinct of patriotism as there is of filial love. The child who says, "When my mother says a thing is so, it is so if it ain't so," is father of the man who says, "My country, right or wrong, still my country."

But excessive civilization tends to deaden this feeling. City life is unfavorable to it, so is business life; the love of money excludes it. An alien population cherishing a worthy love for a mother-country across the sea, experiences but slowly what Chalmers called "the expulsive power of a new affection." All these considerations point toward danger unless the schools do something. What can they do? They can use history for this purpose. In the development of nations, progress has been hastened and dangers averted by the labors and sacrifices of individual men and women. In the early historical story-lessons such men and women should be held up to admiration, and in the later topical study such incidents should be selected as most signally display the virtue we wish the children to emulate. When selected they should be so filled out in detail, so clothed with reality, that they will make a lasting impression. If this is done the pupils will be able at the close of the study to make a gallery of portraits of patriots.

Besides this work, literary gems embodying the sentiment may be culled, and patriotic songs may be frequently sung. Anniversary days of historical event may be celebrated, and the birth-days of patriots. A Samuel Adams day or a Lincoln day may be less æsthetic than a Longfellow day, but perhaps not less useful. As the children became familiar with the lives of these men, learned what they dared and what they suffered, they would learn to say, "With a great price obtained they this freedom, but *we* were *freeborn*;" and they would learn to prize their heritage. Memorial day, too, furnishes one of the best opportunities for awakening in the children the spirit of self-denying devotion. In every village cemetery, in every obscure burying-ground by country waysides, one sees the little flags that tell him that the nation's dead are there. In the public parks of the great cities and on village greens are the simple shafts or the more costly memorial telling the succeeding generations that there have been patriots. Beside these graves, before these memorials, the story which they commemorate should be recounted in the ears of the children. This is a story of patriotism, of sacrifice for country. If it is not this, then it is nothing. If patriotism and treason are equally glorious, then these monuments are monuments to a nation's folly, and Memorial day is a farce. "Malice toward none, charity for all," — this is more than the instinct of humanity prompts; it is all that the spirit of Christianity demands. But to cherish with equal affection those who died to save and those who died to destroy the nation, to crown them both with equal honor, is to obliterate the clearest moral distinction. It is the death-knell of patriotism.

"Peace hath her victories no less renowned than those

of war." We shall do well to show the pupils that patriotism is needed in the everyday administration of civil affairs. It may be harder to live for our country than to die for it. The patriot will be ready to sacrifice personal interests to the public good. If it be necessary to change a bad administration, to remove a bad man from office, to break a corrupt ring, to cleanse an Augean stable, he will be ready to renounce ease, to spend money, to incur odium, to risk personal safety. To make this clear should be the outcome of the study of political science. Milton's conception of education was as sublime as the times in which he lived, and the Commonwealth which he helped to found. But no less exalted ideal is worthy of an American Commonwealth.

"I call, therefore, a complete and generous education that which fits a man to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war."

Such a course of study as I have outlined might help to realize such an ideal.

DISCUSSION.

GEN. H. B. CARRINGTON, OF BOSTON.

A perfect school preparation for citizenship involves all preparation for all after endeavor, and the aggregate of fruitful individual instruction will be the exponent of the value of the organized state.

The life of the state is the expression of its vital forces, and as with all life, these forces must be measured by their beneficent or baneful effects before we can know whether that life be sound or sickly.

Just because the incidents of daily duty in the school-room,

the office, or any sphere of action, are largely controlled by sudden and conflicting forces, requiring immediate solution, it is wise to prepare for sudden and conflicting issues by the study of other lives and of realized results.

It is the province of history to supply data from past experience, so that there may be a general chart at hand, which shall mark the obstacles and courses to be avoided or adopted, even if we do not follow precisely the track of any.

Political science, which in the line of education must embrace all elements that relate to civil life, civil relation, and civil liberty, must be attended and shaped by social science, using that term in the direction of the family, fraternity, and the church. In that case, all modes and processes of mental action will be penetrated by such moral savor, that the best youth, the best man, the best society, and the best happiness of the greatest number will be secured. The experience of all conscientious teachers is similar. I do not remember to have begun, or closed, a single one of thirty consecutive terms in the instruction of two hundred young men; or at an earlier period, of five terms, while instructing half that number of young women, without this painful but stimulating impression, that however unequal to the responsibility assumed, I could not avoid it, and that the entire future usefulness, and happiness of some household or community might be involved in that responsibility.

It may be that varied professional life, as teacher, in the law, and in the army, with the devotion of all spare time for nearly forty years to the study of Biblical and Modern History, have peculiarly shaped my views as to methods of teaching youth, in the direction of the highest possible citizenship. I simply suggest an outline which awakened much enthusiasm and certainly affords a basis for the reference of all historical facts to their right place in human development.

Subdivide time as you please, for convenience, and yet all will take impress from the spirit of two, grand and closely related epochs. The first began *Anno Mundi* 1, and after forty centuries introduced the second, *Anno Domini* 1, which contains our work of to-day. As an exponent of the former, take the law of Moses, the first liberator, and only excepting Lincoln, the greatest human liberator. Take that law as the key to political rights

and progress, and *mark*, that all conflicting systems, dynasties, and empires can only be identified now by painfully searched ruins. But that law remains, cardinal, potential, and supreme, just in proportion as justice inspires political and social life, and the dutiful citizen is protected alike in his rights and his duties. It is often a harder task to do duty well than to protect or assert rights.

Of the second epoch and its trend, I only notice one achievement, distinctly within your memory, and one to which many of you, with your honored President, Col. Sprague, gave earnest service, at the risk of life itself.

It was such an honor to be a Roman citizen, that about the year 56, of this second epoch, one Paul, who so early battled for principles which are still the very life of all intelligent civilization, had only to declare that citizenship and at once compel ruling magistrates to apologize for his stripes and imprisonment. But through Rome's decline, through many dark ages, through the conflict of King John with his barons, through colonial struggles on this continent, in which Puritan, Catholic, and Huguenot alike resisted oppression, through the birth-pangs of the Republic, there was maturing that individual, conscientious revolt against human slavery and its moral blight, which at last emancipated man. And just now while you consult as to methods by which youth may secure a worthy citizenship, while great political parties are alike confused as to economic laws of trade, but the nation still holds and will hold fast the obligations which that emancipation involved, there is one other fact to be noticed, respected and developed. It is this, that Legislature after Legislature responds to the demand of the Church of Christ, coming as it does from all names and sects, calling upon you teachers, who have to supplement the work of church and home, — crying out in tones that will yet sink all names in its own overwhelming issue, — Crying out, "Give us one more emancipation, so that vice, and crime, and lust, and stealing shall shrink from sight, when the highest citizenship, cemented by religion, shall fully mature in the reign of enforced Temperance."

SANITARY SCIENCE.

PROF. A. B. PALMER, M.D., LL.D., UNIV. OF MICH.

Dr. Palmer was called upon by the President, and occupied some half-hour in remarks upon the importance of a knowledge of sanitary science, or the science and art of good living, as a branch of popular education. He said it was the object of the profession of medicine to promote physical development and well-being, and as a consequence mental and moral good, to prevent and alleviate physical imperfections, disease, and death; that disease is a condition which should not occur, and that when a well constituted organism is subjected to the most favorable conditions, *health* results, and death occurs, as in a stalk of corn, without suffering, its full work being accomplished. Disease, he said, was a state of the system in which its actions are deranged by a morbid cause. Many of these causes can be avoided, and men need instruction respecting them. The speaker dwelt upon the importance of such knowledge, and the great changes that have been produced in the rate of mortality by a better compliance with sanitary laws. He referred to the laws of some of the states requiring hygienic instruction in the public schools, with special reference to certain injurious articles, and expressed the opinion that if carried out in a strictly scientific manner great good would result. The question now was, not whether drunkenness was an evil; not whether the moderate habitual use of alcohol, or tobacco, or opium was an evil or a good. Scientific truth tended in the direction of benevolence and humanity, taught the importance of *total* abstinence from all narcotics except for strictly medicinal purposes, and for such purposes these articles were much less frequently required than was commonly supposed. All good men, and especially all good women, would ultimately give their sympathy and their efforts to promote and enforce this view.

VI.

NEW ENGLAND PRIMER DAYS.

BY PRINC. FRANK A. HILL, CHELSEA, MASS.

[ABSTRACT.]

Sir Wm. Berkeley, the governor of Virginia, in a letter to the king two centuries ago, thanked God there were no free schools within his jurisdiction to make the people discontented and seditious. Not far from the same time, Cotton Mather was addressing these words to his congregation in Boston: "The more liberal education we bestow on our children, though we should pinch ourselves for it . . . the greater blessing are they like to become, not only to ourselves while we live, but also unto the Commonwealth when we shall be dead and gone."

These men spoke for two widely different policies; the one Southern, the other Northern; the one to perpetuate ignorance, the other to dispel it; the one in the interest of overseers, the other in that of humanity.

Our forefathers began at the top. When they numbered but four thousand souls, and were hardly by the camping-out stage, they founded Harvard College. They knew that noble inspiration comes from above, not from below. The free school system was made compulsory in 1647, but free schools existed many years before.

The evolution of the school-house was here traced by the speaker and illustrated by sketches; log cabins beginning the series, but palaces ending it. These houses were

planned by men educated at Eton, Harrow, Rugby; and so the stamp of Old England was impressed on the simple architecture of the New England wilderness.

The first teachers were men exclusively,—stern, strong, and orthodox. School and church worked together, each acting in the aid of the other. Girls did not attend the public schools nor were women employed in them as teachers until near the beginning of the present century. They were not educated like the boys, and so were not competent to instruct. Indeed, the girl was of little account in the educational schemes of our fathers. She received a little attention, perhaps, in the dame and nursery schools. She was well-educated if she could read. To write, to cipher,—these were accomplishments. What did not bear directly and obviously upon cooking food, scrubbing floors, spinning yarn, milking cows,—what could not be seen to have an immediate market quotability,—all this was not practical, would n't help a girl fill her station one whit more acceptably, and was, therefore, useless. She worked into the system very slowly, and usually in the face of protest. She recited to the master after the boys were dismissed; she was provided for in separate schools; she was permitted to attend summer schools with the boys, but not winter. And so for a long time she hung about the outskirts of the system.

In separate schools for the sexes to-day, old-time conservatism is shown. It has been only five or six years since Boston has decided to give her girls the same opportunity to fit for college that her boys have had for two hundred and fifty years. The attempt to open to them the doors of the old Latin School failed, and so a new school, the Girls' Latin School of that city was organized

The discipline of the early schools was harsh. Perversity in the young was to be expected and provided for. They were all theoretically depraved, and some naturally. The flesh needed to be mortified.

These old-time schools began commonly at seven A. M., and closed at five P. M., with an hour's intermission. The winter hours were eight and four.

Studies were few. Chiefly Latin and Greek in the grammar or college-fitting schools, and reading and writing in the English schools. Books were scarce. There was the Bible everywhere and always. There was the "Bay State Psalm Book" that sounded the depths of poetry if it didn't scale the heights. For more than one hundred years, and well into the present century, the "New England Primer" was the almost exclusive juvenile book. It was the first book in language, the first in religion, and to many the first and only book in literature. Its range was from a - b, ab, to the profoundest dogmas of theology.

The sombre thought-drift of the times is caught in a list of twelve six-syllable words to be spelled, five of which are *abomination, edification, humiliation, mortification, purification*. The primer bounds in six pages from the alphabet to the Apostles' Creed. The rhymed couplets designed to convey bits of advice, moral lessons, suggestive facts, are familiar to all. The illustrations were crude, and varied with the ingenuity of the printers who frequently designed them, and the capacities of the poorly-equipped offices from which they came. Nearly half the primer is devoted to the Westminster catechism, whose one hundred and seven points had to be committed to memory by nearly all. The effect (of this work) on New England character was marked if not uniform.

The primer days may be said to have closed about the

time of the great educational awakening that witnessed the founding of the American Institute of Instruction in 1830, of the Massachusetts Board of Education in 1837, of Massachusetts Normal Schools in 1839, and the general quickening of educational life in this state, and later throughout New England, under the fearless leadership of Horace Mann.

The lecture was rich in details and sketches illustrating the progressive movement of the schools. It showed most impressively how wisely the fathers planned, even though in their execution they fell often painfully short of their ideal. But the ideal has existed in our statutes from the beginning, clear, bright and lofty, high above the attainment even of the present time.

VII.

LANGUAGE TEACHING IN PRIMARY AND GRAMMAR SCHOOLS.

BY R. C. METCALF, SUPERVISOR OF SCHOOLS, BOSTON.

Every child should be trained to use language correctly and with facility, both orally and in writing. This "end" to be gained by our language teaching should constantly be kept in mind by the teacher, that the methods of instruction may be wisely chosen and intelligently applied in the class-room.

The word "grammar" once covered all our language teaching but when it was clearly understood that the study of "grammar" did not necessarily secure a correct use of language on the part of the student, the most thoughtful teachers began to divide the whole subject into two parts; viz., Language and Grammar: the one having special reference to the correct use of language, and the other to the construction and arrangement of sentences, and also to the inflections of the various parts of speech.

Facility in the correct use of language comes largely from habit. A child who seldom hears or sees incorrect forms of speech, seldom uses them; and on the other hand, the child who is surrounded by what may be termed an atmosphere of incorrect English, seldom uses language well, whether he studies its grammar or not.

The pupil who spends but a few years in the lower

grade schools and then enters the work-shop or the counting-room needs to be trained to a correct use of language rather than to a critical knowledge of its grammar; and on the other hand, those pupils who are to go on to the higher and to the highest institutions of learning, need in addition to such training a careful study of the language itself, not only as a matter of information, but as a basis for the study of other languages.

I would by no means undervalue the importance of the study of grammar. I believe that no one can justly claim any great degree of scholarship who is ignorant of the grammar of his own language. But in granting so much, I do not forget that by far the larger part of our pupils in the grammar and primary schools must inevitably leave school and commence the struggle for mere existence without catching one glimpse of that higher education so delightful and so precious to the favored few.

Let us, then, to-day, while considering the subject of language teaching, consider especially the means by which we can cultivate in our pupils the habit of correct speaking and writing.

The best way to teach a pupil to use language well is to require him to use it on all proper occasions in expressing his ideas concerning something with which he is familiar.

STORY-TELLING.

I recommend that the first steps be taken in the line of story-telling. Children love stories, and from their earliest days are fed on them by mothers and nurses. This love for stories clings to us until old age creeps on, and even then many a weary hour can be made less weary and painful by means of some good story told or read to

the aged sufferer. This natural love for stories should be utilized in the school-room and made the medium for many a valuable lesson.

Little children are brought to the Primary School at the age of five or six years. They are to be taught to *read* the language and to *use* it. Without stopping to consider how we are to teach them to read, let us consider for a moment the beginnings of language teaching.

Taking advantage of their love for stories, let us begin by telling the little ones some carefully selected story. *Any* story will not do. It should be one so well adapted to the age and understanding of the children that it will at once secure their attention by commanding their interest. It should be short and pointed. A pointless story is of no value to a child. His mind can never grasp its details. The story may also inculcate good morals and illustrate some of the cardinal virtues. Honesty, truthfulness, industry, purity, love to God and man, kindness to dumb animals, bravery, benevolence, unselfishness, obedience to parents, etc., may all be illustrated and impressed upon the minds of young children by means of carefully selected stories better than in any other way. A hundred such stories will become a hundred little sermons carefully stored in the minds of our little ones to guide and guard them through the devious ways of life. One such story is worth more to the child than a hundred serious talks by the teacher, falling, as such talks generally fall, upon minds preoccupied by matters of greater interest to the child.

Assuming that the story has been told to the children, the latter should be required to reproduce it, orally, in their own language. The first efforts of the children will, of course, be crude and incomplete. But any effort

should be satisfactory to the teacher and should receive her commendation. Let each little one tell all that he can remember without interruption or assistance from the teacher, except such help as is necessary to prevent absolute failure. Other pupils may add any details that may have been omitted, and the teacher may throw in an occasional question to direct the attention of the class to any undiscovered facts or inferences. The same story may be told and re-told during the same exercise, some pupils giving only a part, while others may be allowed to give the whole, if time will permit.

With the youngest pupils, say those five and six years old, a new story every two or three days will be necessary, but the old stories must constantly be recalled until the danger-point is reached; viz., when the pupils begin to use language borrowed from some other pupil.

If stories are *read* to young pupils they will quite readily reproduce the words of the book; but if the teacher *tells* the story there is much less danger that the pupil will reproduce her exact language. Some teachers find it very difficult to tell stories. Such must of course read them, notwithstanding the danger mentioned. When the story has been read or told to the pupils, and before any attempt has been made to reproduce it, it will be well to question the class, in order that the main facts may be clearly understood and properly arranged by the children. Such an exercise as the one just outlined will give the pupils the training in the *use* of language that they most need. The story interests them, — if properly selected, it teaches some valuable lesson that will assist in their moral training, — and in its reproduction they are using their own language to express the ideas gained from the story. A few minutes every day given to this kind of work will yield most excellent results.

Thus far I have only spoken of the reproduction of stories orally. But while this work is going on, the child is learning to read and to write. At the end of his second year in school, and much earlier than that in some schools, he has attained sufficient facility in writing to add one other accomplishment in the line of story-telling; viz., he can write his stories. A story should not be written by the pupil until he has repeatedly reproduced it orally,—otherwise he will be very likely to use in his oral reproduction the same language that he has already used in writing, and all naturalness will be lost.

Lest some teachers misunderstand the work already outlined, I will repeat.

During some half-hour devoted to language work, the teacher will either tell or read to the class some carefully selected story. She will then question the pupils upon the details of the story to insure a correct understanding on their part. Perhaps during the same half-hour several pupils will have time to reproduce it orally, while others will have time to make slight corrections in the work of the few.

When the next lesson in language is called, other pupils should be required to tell the same story, and similar criticisms to those mentioned above should follow.

With the youngest pupils a new story should now be given, and be treated as above; but with pupils who are able to write, the lesson should be the reproduction of the old story in writing.

This latter work should not be interrupted by any conversation whatever. No questions by the pupils as to the details of the story or the spelling of difficult words should be allowed, because it interferes with and interrupts the thoughts of the pupils. The teacher may, however,

take silent note of errors in form, spelling, punctuation, capitals, etc., and comment upon them at some future time when the class can give undivided attention to the criticisms.

When the work of the half-hour is done, the teacher should designate two or three pupils to copy upon the blackboard the contents of their slates. This work of copying can be done when the pupil can best spare the time. During the next language lesson these blackboard exercises should be criticized by the pupils, directed by the teacher, until all errors in spelling, punctuation, capitals, and syntax have been detected and corrected.

A simple mark made over the error, on the board, will sufficiently designate it, but the correction itself should not be made. The two or three exercises copied upon the board should be treated in this way, and one of them re-written upon the slates by the pupils to insure a correct understanding of the errors indicated. It will not usually be necessary to correct any of the written exercises except the few selected to be copied upon the board.

The kind of work already indicated should be carried on systematically through the first few years of the pupil's school life, in connection with other work that will now receive our attention. It should be mentioned here that all reading lessons may be used as material for language lessons, the pupils being required to tell in their own language the substance of the lesson either before or after it has been read in the class.

LETTER-WRITING.

Letter-writing is an important branch of language work. The pupil's training in this work should commence as soon as he is able to write with some degree of

facility, and should be carried on in connection with the work already indicated.

The teacher may assume certain conditions, and require the letters of the whole class to answer those conditions, as follows: "Willie has been very sick but is now getting well. He is sitting up in bed playing with his little sister Mary who brings him a large number of playthings to amuse him. His mother sits near by sewing while his father is reading his paper by the fireside. Willie wants sister Mary to write to his cousin Jo, in Boston, and to tell all about his dangerous illness; also to ask Jo to come and spend a few days with him."

First, write Mary's letter. *

Second, write Jo's answer.

The number of such letters that may be written will be limited only by the teacher's skill in assuming conditions. In the more advanced classes, business letters should also be written, the teacher dictating the conditions and requiring, on the part of the pupils, strict adherence to them and at the same time a reasonable degree of brevity.

An oral exercise, during which the pupils state what they intend to write, and criticize the statements of other pupils, will be found exceedingly valuable.

Having decided upon the subjects to be treated in some letter, they can be written upon the blackboard by the teacher. One pupil may suggest the "school" as one subject; another the "last vacation;" still another, the "prospect of promotion;" and so on until a sufficient list has been secured. These can then be arranged in some methodical order and numbered. This arrangement of subjects preparatory to a written exercise is also useful in teaching pupils how to divide a composition into paragraphs, as each subject will furnish material for one paragraph.

Another excellent exercise in connection with letter-writing is found in making "briefs" of letters already written. For this purpose some pupils will copy upon the board a letter furnished by the teacher. The class then will be required to make a short abstract of it, and this abstract should be of such a nature that the letter itself can be fully answered without other assistance. Such exercises furnish excellent preparation for the business of the counting-room.

This exercise may be varied by placing upon the board an abstract of some letter. Then let the pupils write out the letter from the abstract. These productions should be compared with the original letter. Such an exercise is very profitable, and frequently very amusing.

Time will not permit any further consideration of the subject of letter-writing, but it is commended to the attention of teachers as one of the most important branches of language teaching.

TOPICAL RECITATIONS.

As soon as pupils commence the study of geography the work may be combined with that of language training.

Scholars should not only be questioned upon the lessons studied, but they should be required to tell what they know about any subject in their own language and without questions. We learn to talk by talking, but the talking should be done in a succession of sentences uninterrupted by suggestions from a teacher. The construction of one sentence is comparatively easy, but to persistently follow a line of thought and at the same time clothe the ideas in fitting words is no easy matter. To secure this end is the real object of all our language

training. For this purpose we must be sure, in the first place, that the pupil has a clear idea to express. His lesson must be carefully learned and thoroughly understood, or it cannot be made the subject of a language exercise. Confused ideas will lead to confused expression. Much of the poor speaking that we hear from the platform is due partly to the confusion of ideas, and partly to a lack of knowledge of words or a lack of skill in choosing them. The teacher's language work, then, is two-fold. First, she must impart her instruction so clearly and systematically that the pupil will get clear and distinct ideas of the work in hand; and second, she must train the pupil to express those ideas correctly and readily.

While studying geography, the pupil learns of the productions, climate, and drainage of some country. The teacher will question her class until she is sure that the pupils understand clearly the subject of the lesson. At this point the exercise in language may be said to begin. Now the teacher requires each pupil to tell all he knows of the productions, climate, or drainage. No more questions are to be asked, no more suggestions are to be made. The pupil is thrown on his own resources, and must stand or fall without assistance from teacher or classmates. The ordeal may at first be a severe one, but once passed, the pupil's confidence in himself is established and his future progress exceedingly rapid.

History, also, in the higher grades, furnishes abundant material for language training. The lesson is learned by the pupil as in geography. His knowledge is tested by the teacher until it is quite certain that his ideas are clear and distinct. Then he is required to make a complete statement of his knowledge, clothing his ideas in the best

language possible to him. Soon it will be found that the pupil is not only gaining the power to use language with considerable ease, but what is almost if not quite as important and valuable to him, he is gaining the power to read a chapter in geography or history and at once gather the ideas of the author.

The pupil will also soon gain such confidence in his ability to tell what he knows, that in studying, his mind will be given exclusively to gaining ideas. No thought whatever will be given to the language of the author, nor will his mind be embarrassed in the slightest degree by any idea that this language must be reproduced in recitation.

A teacher who has never tried the experiment would expect the progress of pupils so trained to be exceedingly rapid. Those teachers who *have* tried it know that the results of such training have exceeded their most sanguine expectations.

Recitations, when the pupil is thrown on his own resources without assistance from his teacher, are called topical. The two subjects mentioned, — viz., geography and history, — are especially adapted to this kind of recitation; but it must not be forgotten that the topics are to be carefully studied by the pupils and their knowledge thoroughly tested by the teacher before the language exercise begins, or else there is danger of a confusion of ideas, which in turn will lead to an unfortunate selection of language.

INFORMATION LESSONS.

We must now turn our attention to language lessons of another kind; viz., such as are founded upon information lessons given by the teacher. Such information lessons, or elementary science lessons, are now included in

every well constructed course of study. The subjects are selected from the animal, vegetable, and mineral kingdoms, and include a study of fruits and flowers, various kinds of woods, as well as minerals and metals. Later in the course, biographical sketches and descriptions of natural scenery and works of art may be taken up. All of these subjects furnish excellent material for language work; and that I may be clearly understood, I will give the outline of an "information lesson" selected from a large number prepared and used by some of the Boston Grammar school teachers.

The following information about "Cotton" was gleaned from various books, by the teacher, and given to the class (5th) in a series of familiar "talks."

COTTON.

1. Introduction:

Materials for clothing are cotton, wool, linen, and silk. Wool and silk are animal products. Cotton and linen are vegetable. Cotton is most important, being cultivated to a greater extent and manufactured at a cheaper rate, and therefore most commonly used.

2. Where produced:

In hot countries and the warm parts of temperate countries. Was cultivated in China and India many hundred years B. C. Also grows in South America, Africa (along banks of Nile), and the countries of Southern Europe; but the greatest cotton region in the world is our own Southern States, where the supply is so great that we manufacture but one-fourth and send the remainder to other countries. (Would have all these places pointed out on the map.)

3. Description of plant:

(a) Height: is a shrub varying from three to fifteen feet, similar in appearance to the hollyhock.

(b) Leaves: are large and dark green in color, and five-lobed. (Illustrate on black-board.)

(c) Flowers: are large and showy, usually yellow, but sometimes varying to a purple with black spots; similar in shape to those of the hollyhock.

(d) Fruit: called boll, forms after blossom falls; contains three to five cells full of fibre, called cotton, in which the seeds are imbedded. The boll when closed is about the size of a walnut. Seeds are black or green, covered with short fibre, and resembling a small lemon seed in size and shape.

4. Kinds:

There are many varieties, but the two best known are:

(a) Long Staple or Sea Island. So called because the fibres are very long, (about 2 inches) and fine; also because it is cultivated on the islands and lowlands on the coast of South Carolina and Georgia, where this kind is mainly found. This is the best cotton produced.

(b) Short Staple or Upland: So called because fibres are short, (about one inch) and because cultivated on higher land in the interior: is found in greater abundance, but not so valuable as the other.

5. Planting:

Begins about the 1st of April. Is planted in rows about four feet apart. In about a week the young plants come up and are allowed to grow until they have several leaves: then they are thinned out by cutting away the stalks and weeds, and later on are thinned again, only a single strong plant being left in each place. In about three months they blossom; when the blossom fades and falls, the boll, containing the seeds and cotton, is left;

when the boll is fully ripe it bursts and the cotton is exposed to view. It is now ready for picking, and the field looks like a mass of snow. The picking must be done in the morning, because if left till noon the sun would discolor the cotton; it must also be done in dry weather, as dampness would cause it to mould. Each picker carries a bag slung over his shoulder, in which the cotton is placed. It is then carried to the cotton-gin.

6. Cotton-gin:

This is a machine for separating the fibres from the seeds. It consists of a number of circular saws, with fine teeth, fastened to a bar which is constantly revolving; these saws tear the cotton from the mass, and the seeds fall into a box below. Behind these saws is a revolving brush which takes the lint from the teeth of the saw: then a large fan blows the lint from the brush into the lint room. The cotton is then packed in bales, bound by iron hoops, and sent to the mill to be manufactured into thread, yarn, and cloth.

The teacher then writes the following abstract of the "talks" upon the blackboard, and the pupils are required to express their ideas upon each subject, orally, to the best of their ability.

COTTON.

1. Introduction :

- a. materials for clothing.
- b. animal or vegetable.
- c. most important.

2. Where it grows:

- a. where first found.
- b. where cultivated now.
- c. where is greatest cotton region.

3. Description of plant:
 - a. height.
 - b. leaves.
 - c. flowers.
 - d. pod.
 - e. seeds.
4. Kinds:
 - a. Sea Island or Long Staple.
 - b. Upland or Short Staple.
5. Planting:
 - a. time.
 - b. ploughing.
 - c. thinning.
 - d. picking.
 - e. sent to cotton-gin.
6. Description of cotton-gin:
 - a. circular saw.
 - b. revolving brush.
 - c. fan.
 - d. lint-room.
 - e. packing into bales.

Such an abstract will furnish material for several talking exercises, and these in turn should be followed by several writing exercises. The language exercises following story-telling, topical recitations, and information lessons, being similar in character, need no further explanation than they have already received.

SUPPLEMENTARY READING.

The use and abuse of supplementary reading has been so widely discussed during the past few years that it is hardly necessary to go over the ground to-day. I will only undertake so much of the task as is necessary to

show how such reading may be made to contribute to the teaching of language in the elementary schools.

In the primary schools, supplementary reading merely increases the amount of reading-matter to be used in the school-room. A few years ago one reader was supposed to furnish all the matter needed for an ordinary class during ten months. The stories or lessons were read and re-read until they were learned by heart, and in many cases pupils could read equally well with the book open or shut. I remember distinctly my surprise upon being told by an intelligent parent that his boy, though by reputation one of the best in the class, could not read a word outside of his primer. He could repeat correctly every story in the book, if allowed to see the picture at the head of the page. Any other story constructed from precisely the same words* was to him as one in a foreign tongue. In most of the primary schools with which I am acquainted, at least five or six ordinary books will be read in one year, and in some schools double that number.

In the grammar schools, however, the reading is still too limited. It is true that the studies of geography and history supplement the work of the school-reader, but not to such an extent as is desirable. There is no good reason why boys and girls of fourteen or fifteen years of age should not read in school, or in connection with their other school work, much of our best English and American literature; enough at least to establish a taste for good reading and to provoke a desire to know more of the purest and best. Moral training primarily belongs to parents and teachers, but the company our children keep, and the books they read, are more potent by far than parents and teachers combined. Our efforts, then, should be directed towards cultivating a taste for good company

and good reading. In the school-room we can do much in this direction. Good books should be provided by those in authority as the best investment for the security of good morals.

Promiscuous reading of even good books is not to be desired or permitted. Books should be read in such a way that the beauties of style and diction may be appreciated, as well as the facts and incidents of the story. That this may be the result it is necessary that the teacher take an active part in the reading. Except in the lower classes, the reading should be done by the pupils at home, and only the results of that reading brought into the school as a class exercise.

The teacher must be as familiar with the book as the pupils themselves, and neither should be allowed to use the book in the class-room except for an occasional reference. During the reading-hour the pupils discuss the portion of the book read in response to the notes made by the teacher. In this way the teacher is enabled to guide the discussion into proper channels. The peculiarities of the author's style, the incidents of the story, the descriptions of natural scenery, the development of the plot, and a hundred other things connected with the matter read, can all be brought out in the discussion in such a way as to make an impression upon the mind of the child. He can be led to admire and love what is noble and good, to hate what is ignoble and bad, and at the same time to appreciate the skill of the author in developing the story so as to maintain the interest of the reader to the end.

Such an exercise is also invaluable in training the pupil in the use of language. He is learning to read, and reproduce what he reads, precisely as in the case of his studies in history and geography, with the advantage in this

instance of reading and reproducing a kind of literature in which an author's skill in playing upon the moral springs of the reader's mind may be more effectively used.

If books are carefully selected, carefully read, and skilfully criticized by teacher and pupils, it will be hard to over-estimate the value of the moral training resulting from such exercises. If the pupils are allowed to express freely their thoughts and feelings in regard to such books, it will be equally hard to overestimate the value of the exercise as mere training in the use of language. I commend this subject, in all its bearings, to the attention of thoughtful teachers.

VIII.

ONE WAY OF STUDYING POETRY IN SCHOOL.

BY WM J. ROLFE, SHAKESPEARIAN EDITOR.

(ABSTRACT.)

Mr. Rolfe remarked that his paper was put down as on "One Way of Studying Poetry in School;" but after writing it, he found that he had to cut it down. It had to do therefore only with a single feature of the method he intended to discuss; namely, certain exercises intended to develop critical insight and skill in the pupil.

The *cultivation of taste* is the chief aim in the school study of literature; but the great defect in the work as generally conducted is that while the pupil learns certain facts about the poetry he reads, he does not acquire the ability to judge intelligently of poetry in general. His taste is neither sensitive nor trustworthy; he is in nowise a critic.

To train boys and girls to the "critical habit," one wants a supply of practical problems in matters of taste, the answers to which are not given, but which they must work out for themselves; and the bulk of Mr. Rolfe's paper was devoted to the consideration of some of the sources whence such problems may be drawn:—

1. *Misprints and corruptions* in the ordinary editions of standard poets. Some examples from Gray, Scott, Tennyson, and other writers were given to show what excellent topics for familiar discussion and the exercise of critical judgment, were to be found in these errors.

2. The *alterations* made by authors in their works. These are generally improvements, but not always; and in either case the pupil should be able to explain why the change is made, and whether it is for the better or not.

3. The *various readings* of writers like Shakespeare are among the most valuable of these problems, for in spite of what has been said to the contrary by certain critics, boys and girls in school are competent to discuss many of them intelligently and to pass judgment upon them. Examples were given from the speaker's own experience as a teacher, taken from the *Merchant of Venice*, and the *Tempest*.

4. The *blunders of critics and commentators*, and also their *disagreements*. This was illustrated from comments made by eminent critics on Shakespeare, Tennyson, and others.

5. *Supposable alterations and criticisms* are also useful as tests of the young critic's insight and judgment. In many cases, plausible changes in the poet's language may be suggested, and their merits and demerits profitably discussed. Editors and commentators also furnish a large stock of these: like Walton's proposed printing of the first line of Gray's *Elegy*: "The curfew tolls! — the knell of parting day." The school-boy who cannot show up the stupidity of the critic here ought to be ashamed of himself.

Mr. Rolfe then went on to speak of certain special exercises that may be introduced more or less regularly to give variety and interest to the study of literature; as, for instance:

1. The selecting of examples of figurative language, illustrations of rhetorical principles, and the like. The ordinary management of such work was criticized and

devices for making it more exacting and at the same time more enjoyable, were suggested.

2. Questions of a miscellaneous character, suggested by things in the lesson, may be given now and then, to be worked out at the option of the scholar, ample time being allowed for the work. Here, as under all the divisions of the paper, sundry practical illustrations were given, to which a brief notice like this can merely refer in this general way. These were, however, the most important and the most interesting portions of the paper.

Emphasis was laid upon the advantage of training the pupil to habits of *comparison* and *tracing analogies* in language and literature by means of practical questions and exercises; and this was also illustrated from the speaker's own work as a teacher.

IX.

ENGLISH IN THE SCHOOLS.

BY PROF. A. S. HILL, OF HARVARD COLLEGE.

(ABSTRACT.)

Into the hands of the teacher of English come pupils of the most varied degrees of culture. All have been influenced, more or less, in the art of expression as in all other respects, by an unconscious absorption from ancestors, the home-circle associates, and books. They have all been talking English, good, bad, or indifferent, and nearly all have had exercises in penmanship and spelling under various modes of instruction; but when they are asked for the first time to write a composition, the result is usually failure.

Prof. Hill's opinion was, that the ill success of beginners in English Composition, was attributable to their inability to retain freshness and life while struggling with mechanical difficulties at every step; and he thought the methods of teaching in our schools radically defective.

He suggested the following method in place of the current one: (1) To begin as early as possible to overcome the mechanical difficulties of writing. (2) Not to frighten a pupil with a so-called composition till he can use his pen with freedom and tolerable correctness. (3) To show the importance of having something to say and of saying it in an intelligible and natural manner. Pupils should not be made to waste their time and energies upon

formal grammar and punctuation as a system. They must know, of course, the principal functions of every part of speech and of every mark of punctuation, but instruction in both these matters should be given by example rather than precept, indirectly rather than directly.

Teachers should make their pupils feel that every kind of written work is an exercise in English, and should impress upon them the fact that compositions of whatever nature are as important a part of the school work as any other study. It is their duty to see that these exercises are made as pleasant as possible.

A boy should write upon subjects that interest him, that he may throw himself into the matter in hand as into a favorite game, and so speak his own thoughts naturally and easily. Special attention should be paid to the cultivation of those qualities which give a composition unity of structure and fluency of expression.

As to cultivating a literary style and taste, let children read good books that are adapted to their ages, tastes, and attainments, not that they may hope to copy the style of day of these authors, but that they may be influenced unconsciously by them, as one acquires good manners unconsciously from good associates.

The study of the English language as such, and that of English literature as such, are valuable ; but they are indirectly rather than directly serviceable in the writing of English.

DISCUSSION ON LANGUAGE TEACHING.

MR. F. F. BARROWS, Connecticut: In the teaching of language and composition, would Mr. Metcalf pursue any different course, from that which he has outlined, with that part of a class which did not do the prescribed work well ?

At the invitation of the President, Mr. Metcalf hereupon further elaborated his views on the Teaching of Language, as follows :

There are always exceptional cases in all classes of pupils, and we must depend upon the tact of the teacher at the time to know what is best to do. I have, in the paper outlined a general plan which may be followed as far as circumstances permit. It may be assumed that all or nearly all children like to talk, and any diffidence usually arises in consequence of a feeling that they cannot do well the work in hand. It therefore becomes the teacher's duty to encourage by judicious commendation every honest effort of his pupils; and moreover, to adjust his requirements so skilfully to the ability of his pupils that no honest effort will fail to bring commendable results. •

The difficulties to which the gentleman alludes in his question may be safely left to the tact of a judicious teacher. I am confident, and my confidence comes from an experience of several years in this kind of work, that most of the difficulties anticipated by teachers who have never attempted the work will disappear after a trial of two or three months.

The plan outlined in the first part of my paper on teaching language by story-telling, information lessons, reproduction, etc., is not the plan I would advise for the upper classes of the grammar school. It refers, rather, to the first six classes, three in the primary and three in the grammar. In the upper classes I have usually placed in the pupils' hands carefully selected books from the public library. I may mention that these books are now supplied by the Boston School Committee, sets of sixty being furnished to the teacher's order. These books are not to be read in school hours, but are taken home once a week by the pupils, and a prescribed number of pages read. On the following day, the pupils return the books, and in a class exercise give their ideas of that portion of the book which has been read. It is on the same principle as followed out in the story-telling and reproduction in the lower classes, except that the pupil himself now reads the book and then reproduces the subject-matter. In my own experience, I found the pupils rapidly gained an ability to reproduce in pretty good English a story of twenty pages, after

reading it once or twice at the most. The object of this plan was to cultivate in the pupil a habit of getting the *idea* from what he read. When this power was once obtained, it was a wonderful aid to progress in all his school studies. Formerly when pupils only had to reproduce the words of a lesson, they sought for words; now that it was the idea they were to look for and reproduce, they could cover thirty pages of a book, where before they struggled over five or six.

Of course there always are a few of the more brilliant who, if allowed, will do all the work of the class. But the teacher should guard against this. Give one pupil a fair share of the time and then call on others,—till all have been brought out. From this verbal expression, it is an easy step for the pupil to tell his story with pencil.

It has often been asked me, what is a teacher to do with the poor exercises so often seen on scholars' slates, after the most conscientious teaching? I do not examine slates to any great extent. I do not attempt to correct all the errors of a pupil's composition. I do not believe it is necessary. In a private school and with five or six scholars, it might be an excellent method, but with fifty scholars and fifty slates, what can a teacher do? It is impossible to examine them all, and do all the other school work well. A teacher, be she ever so strong, has only so much energy, and if she puts it into the examination of slates she cannot put it where it might be far more desirable.

Sometimes an old teacher, fortified by her "long experience," will tell you that you may write and re-write your corrected exercises upon the black-board, teach and interest the children all you may, and still they will not have their exercises correct. Why expect it? Certainly the children will not always find out every mistake in their exercises under the plan proposed. You may examine and correct every slate, and even then mistakes will appear in every new draft. But follow out the proposed plan day by day for several consecutive years, and then let us ask for results. The fact is, too many teachers want to get results right away.

This teaching of language should begin when the child is five years of age. Most of the mechanical difficulties of writing can be mastered in a year, and then the pupils can have eight years of

language and composition study. But to-day we cannot talk of results. We have had no eight years' experience upon which to base conclusions.

MR. MAXWELL, Associate Superintendent of Schools, Brooklyn, N. Y.: Prof. Hill, in his paper on language, referred to the mechanical difficulty of writing as one of the hindrances to a child's ready flow of expression in his composition exercises. He further advised writing on slates as easier for the child than writing on paper. Personally, I have no doubt that slate writing is an easier method, and therefore a better medium for such exercises — and so in a less degree is the pencil better than the pen — but the question naturally arises, at what time should the pen be introduced into schools?

MR. METCALF: In Boston we introduce the pen in the fourth year; as soon as the pupil comes to the grammar school. In the primary schools they use slates entirely. They also use them to some extent in the grammar schools, but nearly all the slate exercises by the older pupils are afterward copied on paper for preservation. This can be done easily, as only about two of these so-called "information" lessons, which the pupils have to reproduce, are given in a month.

One other question often arises with teachers when considering this subject, and that is, "How much technical grammar should be taught in the schools?" Personally, I would confine the technical work largely to the construction of sentences, and to the study of facts concerning the parts of speech. Studied in this way, grammar is far easier for the pupils than is generally supposed. There are certain definite facts about a part of speech which a pupil should know. But how often, instead of this definite knowledge, do we hear them rattling off declensions and conjugations without the slightest idea as to their meaning. Of course, it may be claimed that to the ordinary pupil a knowledge of the grammar of the language is not necessary, but those who are to be educated men and women, surely might know — and correctly — what little of English grammar there is to be known.

GEORGE A. LITTLEFIELD, Superintendent Schools, Newport, R. I.: It is very fashionable of late to say that much of the technical grammar usually taught, is useless, but the critics who say this do not take the trouble to mention any portion of it to be

abandoned. Mr. Metcalf, I see, employs the same general terms of denunciation, and the last essayist of the morning session, in the course of his brilliant paper, brushed aside the teaching of grammar as of little account. Now, in order that we may derive some definite benefit from this discussion, will Mr. Metcalf please state what particular portions of English grammar he would have dispensed with?

MR. METCALF: To answer that question satisfactorily, I should want to know how much grammar is now taught in the schools to which the gentleman refers. I might say, however, that I do not think it is of any great value to be able to rattle off conjugations as pupils too often do.

I once asked a bright girl in the graduating class of one of our grammar schools to tell me how each tense in the Indicative mood is formed, and it was with the greatest difficulty that she answered the question correctly. Yet she could conjugate any verb with the greatest ease. The jingle of the conjugation she had learned, but little if any meaning had ever been attached to it.

If, instead of this, the pupils learn the four forms of the English verb and study carefully the auxiliaries, there is really little else to learn about the verbs. What was expressed in the classic tongues and in the ancient Saxon by terminations, we express by auxiliaries; hence auxiliaries should be carefully studied. But there is no reason for studying the verb as if it were a Latin verb. On the other hand, certain reformers ask what is the use of knowing any of these things? I reply, because we are broader men for knowing such things. It makes the difference between the educated and the ignorant man. The narrow utilitarian idea has already had too much sway. In conclusion, I would also say that the more a teacher knows of this subject the more interesting he can make it when teaching it to a class.

MR. W. J. ROLFE, Cambridge, Mass.: The reference to "regular" and "irregular" endings of words and the remarks about making the subject of grammar interesting, leads me to ask, If we must use technical terms in the teaching of grammar, should we not make them precise and interesting? To-day pupils are taught that certain words are "regular" and "irregular," but it is a very rare thing to hear asked, what is meant by these terms "regular" and "irregular." If we do, what is the result?

"Regular" means according to rule; there is some point in which examples given under that head agree, hence they can be classified. If, then, things are said to be "irregular," one naturally assumes that they are not capable of classification; but what is the case with these nouns and verbs that are termed irregular? I may be able better to illustrate this point by relating my own experience. I remember, when teaching a country academy, thirty or more years ago, of taking a class of boys and girls of eight to ten years of age and beginning to teach them grammar in my own way. Now the ordinary text-books tell us that the regular plural of nouns is formed by adding *s* or *es* to the singular, and all other plurals are irregular; such as, for instance, *goose*, *geese*. But, why are these called "irregular?" I asked. "Because they are not according to rule." "Not according to any rule? What is the plural of *foot*?" "*Feet*." "*Of Tooth*?" "*Teeth*." "Are not these three plurals, *geese*, *feet*, *teeth*, formed in a similar way?" "Yes," was the reply. "Are they not according to a seeming rule?" "Yes." And in such a case, young pupils cannot only be made to see that there *is* a rule of formation, but they can be led to discover and state that rule themselves. They will see that these words like *mouse*, *mice*, etc., form their plural by a *regular* internal change; but not in any *irregular* way. Precisely the same may be said with regard to the *irregular* verbs, which are the oldest regular verbs in the language, as the pupil will show by a comparison of examples like *sing*, *sang*, *sung*, *ring*, *rang*, *rung*, etc., to which you call his attention. Instead of calling verbs *regular* and *irregular*, it is far better to adopt the terms given in the advanced grammars, such as *weak* and *strong*. These terms are at least capable of being explained and justified. All the *weak* verbs require an addition from without; the *strong* undergo an internal change, and need no such outside help. If technical terms are taught, let them be correct, and let the scholars be taught what is meant by the terms. Personally, I would introduce very few technical terms when teaching children.

And here, as Professor Hill is not present, let me defend him against a charge I heard made after the reading of his paper this morning; namely, that after saying he would teach little or no technical grammar, he went on to specify many things in grammar which he thought was necessary to be taught in learning the En-

glish language He meant, I presume, that he should teach very little "technical" grammar in the dry, memoriter way, which is worse than useless, and not only stultifying but stupefying to teacher and pupil. He would, I suppose, teach the essentials of grammar in a familiar way in connection with the general study of language,—teach a good deal of grammar, but not in the old, bad way.

SUPT. MAXWELL, Brooklyn, N. Y.: Would you have the definitions that are given in our grammars memorized by the pupils? The essence of the old, bad way, I think, was in memorizing much of these definitions and rules. If so, and if, under the new, good way, it is necessary still to understand the technical terms, how is the pupil to accomplish this end? Is it not a mere matter of names?

MR. ROLFE: As to the difference between *regular* and *irregular* on the one hand, and *strong* and *weak* on the other, being a mere matter of names, I think not. *Irregular* is false as a technicality; it is an absurdity. *Irregular* is *contrary to rule*, and here as an antithesis to *regular*, it is pointless; while as *weak* and *strong* are simple and expressive words, you can give an explanation to them that assists the memory. If technical terms are introduced, they should certainly be accurate and intelligible. Technical terms which have some meaning which the scholar can see, are also more likely to be remembered. The main use, however, of technical terms, as some eminent critic has said, is "for convenience' sake in talking about a thing." They should therefore be introduced only so far as they are found necessary in giving explanations; and then, not till the facts have been taught without the technical terms. For instance, after explaining in a familiar way what we mean by gender and number, the technical terms may be given. In classifying nouns, after making it clear by comparison of examples that there are certain classes, you may introduce the terms applied by grammarians to these classes.

DR. PHILBRICK: When the word *irregular* is defined to the pupil as it is given in the grammars, does it not become a technical term, and is it not as good as any other one? Is this not a mere question of terms?

MR. ROLFE: Of course you can lay down a single rule and call all nouns or verbs that do not come under this rule *irregular*,

but the name in itself is a lie. It confuses the young mind; it is stupid as well as dishonest. You can, on the other hand, give these nouns and verbs a name which will suggest some common characteristic, and thereby assist the memory. And are not such names preferable to terms which are false and absurd on the face of them? In this way a technical grammar might be made which would be consistent. And it would only be following a precedent; we have already dropped the term *imperfect*, which was originally borrowed from the Latin grammars. The older grammarians applied it, in English, to the past tense of any verb. But the past tense is not an imperfect tense. The objection was seen to be a valid one, and the word disappeared accordingly — *past* has taken its place. Hence the principle is a sound one. If we are to have technical terms and can change them — and they are changing in our grammars — if we are going to have them, let them be accurate, expressive in themselves, and let the pupil be made to see why they are used. The same argument applies to what are called *participial nouns*, about which there is the most absurd confusion in our grammars, wholly different things being put under this head.

[The speaker here illustrated the difference between such verbal nouns as "*Reading* is useful," and true participial nouns, as "*The Loving* are the brave."]]

Such confusion is the result of former ignorant and mechanical work in the way of grammar-making, reacting upon the teacher. Till to-day, he treats things as if they were alike, when they are radically and historically different. As to the teaching of these differences, I never had any trouble in making them clear to scholars.

PROF. E. CONANT, Vermont: Should not this information as to words and grammar that is necessary for the pupil, be made plain and simple, and thus put into a form of words which he might learn?

MR. ROLFE: I should myself prefer to teach grammar orally.

MR. CONANT: But would you have the pupils learn the terms?

MR. ROLFE: I do not care how the facts are learned, if they are learned. For instance, to recur to participial nouns, so-called, I might give the words "A working-day" and "A working-man." I should then ask the pupil if the word "working" had

precisely the same meaning in the two compounds, and should not be satisfied until he could tell me the difference between the two. Then I might tell him that *working* in *working-day* (a day for working), is a *verbal noun*, used adjectively, while *working* in a *working-man* (a man *who works*), is the *participle*. I might or I might not, according to the age and previous training of the pupils, go on to explain that the two forms are *historically* independent, and in old English had different endings, which afterwards became confused, until one of them was finally lost.

As for my own method, I should probably teach more grammar than is taught in an ordinary grammar school, but I should teach it in this untechnical (and to some extent historical) manner, and thus make it at once more interesting and more profitable. I might bring in some technicalities *in this way* not given in most grammars. For instance, I might speak to the scholars of *diminutives* in the English tongue and the method of formation, and should then set them to hunt them up. In contrast to these, *augmentatives* might be instanced. Ask your scholars to think of any. Lead them on by asking what we call a person who drinks too much—as *drunkard*. Call the attention to this ending of *ard* or *art*, and draw out from them such words as *dullard*, *slugard*, *laggard*, *braggart*, etc., and so on. This is a single illustration out of many that might be given to show my meaning.

SUPT. LITTLEFIELD: We can all endorse in substance nearly everything that Mr. Metcalf has said in his able paper. Upon this one point of teaching grammar, however, since it is admitted that the principles of grammar are essential, I do not see any advantage in decrying present methods unless better ones are pointed out. In answer to my question, he mentions only one thing that he would omit,—namely, the conjugation of the verb,—and he cites in proof the wasted energy of a young lady recently examined who fluently recited the conjugation but who was only able with difficulty to answer his searching questions into the philosophy of the moods and tenses. Now, I submit, gentlemen, that if the young lady had not known the conjugation and been able to see it spread out in her mind as one sees the streets of a familiar city, she could have made no headway at all in answering Mr. Metcalf's more difficult general questions. She must know the particulars before she can be expected to generalize.

X.

THE EDUCATIONAL READING OF TEACHERS.

BY RAY GREENE HULING, A. M., FITCHBURG, MASS.

In 1874 one who now has an enviable name among the teachers of our land wrote these words: "The great majority of teachers, on entering the profession, have had little opportunity of becoming acquainted with principles and methods of teaching, and confine themselves mainly to the imitation of their teachers. This is apt to make their teaching mechanical, soulless, devoid of high aims, so that they exercise very little influence upon the development of intelligence and character in the pupils; it prevents them from asserting their own individuality in their work, and thus keeps them from developing individuality in their pupils. At the same time, they are unable, for want of a firm basis, to contribute to the growth of correct principles in the profession, and are thus rather an impediment to progress."*

The facts in the case are, I believe, the same for this year of grace 1884. Now if this great majority of teachers during their term of service pay little or no attention to educational reading, receiving no acquisition of information upon their chosen life-work beyond that contributed by an occasional attendance upon some teachers' meeting or by desultory visiting among teachers little better fitted than themselves, evidently routine and stag-

* Hailmann's "History of Pedagogy."

nation will be the general lot; while a few, — a very few, — will develop amid their untoward surroundings, either by accident or by natural aptitude, individual methods of special excellence. Suppose, on the other hand, that this great majority of teachers, while learning from daily experience the details of instruction and management, (which can be learned in no other way), apply themselves to the reading of the principles of teaching as developed by the experience of others, and of the methods which others have found useful. Then their daily round of duties will be viewed in altogether a stronger light, and each successive autumn will find their daily practice beginning upon a higher plane and tending toward a more valuable result. It is, therefore, with the purpose of urging you to such reading of educational works that I address you now.

I confess to a feeling of shame as I assume that many of my hearers — New England teachers — are in need of such urging. I should like to believe that you are all in the habit of reading the books of your profession as carefully and as eagerly as the young lawyer seizes the latest volume on contracts, or the young physician a new treatise upon the cholera germ; but a little observation and much inquiry has taught me that I cannot honestly take for granted the fact of a general desire among teachers for educational reading. The rank and file find discussions of principles tedious and elucidations of methods "too dry." And so, they turn to lighter literature. If I am to comply with the suggestion of the honored president of this body, to make my address "practical for the average teachers," I must proceed upon the supposition that many of you are not aware what you are losing in neglecting this department of literature, and that still

more do not know what books are available for the purpose. There are, doubtless, a few before me to whom all that I have to say will be a twice-told tale. Let me ask these few to bear with me, — with me who might well sit at their feet for suggestions on all points in our work, — while, as a young teacher who has read a little, I offer aid to the many who have read still less.

I will assume that most of you read quite habitually some educational journal, for you are here, at this meeting. Those who do not read teachers' papers stay at home from teachers' meetings. I might, however, err, should I assert that you take much genuine delight in such reading. Very well. Let us hope that the skill of our journalists may soon be so developed that useful topics shall be invested with the interest with which writers of fiction surround the veriest trifles of social life. See how charming the English scientists have made the facts of biology, of astronomy, and even of physics, when a Huxley, a Proctor or a Tyndall has wielded the pen. But whether the discussion of pedagogical facts be "dry" or fascinating, one consideration remains in force: we who are teachers must read them or stagnate. For self-preservation, then, for the sake of that growth which is indispensable to the attainment of any satisfactory ideal of success in our work, I call upon you to begin and resolutely to continue a course of educational reading.

There are, to be sure, some real difficulties in the way. The greatest is the disinclination toward "solid" reading which, in these days of ill-directed browsing among books young people quite generally have, as most of them readily confess. Better days are in store for the coming generation, I verily believe. But the teachers of to-day when growing to maturity were allowed, with little re-

straint, to revel in imagination and trivial literature till few of the younger of us find real pleasure in anything more abstract than a book of travels. For those who acknowledge this difficulty I have a hearty sympathy springing from parity of experience; but I assure them that a resolute determination to master every art demanded by the conditions of good teaching, will overcome all hinderances of this sort in a single year of persistent effort. The end is worthy of the means.

Another difficulty which *seems* real, is a lack of the necessary time. Young doctors and young lawyers, by a merciful neglect on the part of the wished-for patients and clients, are bountifully provided with time for professional reading. But young teachers find their waking hours so closely occupied by in-school and out-of-school duties, and by the various social demands which come to them in common with other men and women, that time for the systematic reading of subjects demanding thought seems very hard to obtain. Yet it must be obtained; and if you grant that such reading is necessary, as necessary as, say, a new bonnet, time to secure the means of filling the head, as well as that of covering it, can and will be provided. But how? By a systematic apportionment of the fragments of the day. Littrè is said to have prepared a large part of his enormous dictionary in the intervals of waiting for his wife to complete her morning toilet. Prof. Barker, the electrical expert of Philadelphia, a very busy man, tells me that no day passes in his working terms in which he does not read a hundred pages about physics. So in our humbler spheres of action, if we choose to plan our work with care, and have the grit to follow our plan with regularity, a hundred pages a week concerning our work can

easily be mastered by most of us. This means ten or a dozen books of value within the year, not to speak of periodicals. The difficulty, then, is not in reality one of time, but simply another manifestation of that Protean evil which is the main cause of inefficient work in the school-room, — aimless and ill-planned effort.

The third difficulty in the way of educational reading is no more formidable than the two just considered. I speak of ignorance of suitable books. A very slight effort, a single letter to one of many educators in whom you have confidence, will elicit more titles than you can use in a twelvemonth to come. Scarcely any book thus brought to your notice would fail of being useful. There is, however, some choice among them, and I propose to use the remainder of my time in rendering the choice easier by mentioning a dozen or more works, large and small, in which I have found particular interest and considerable value.

The aim of such a course of reading should be to acquaint the teacher with three groups of facts: (1) The laws of mental, moral and physical growth; (2) The methods found effectual in securing such growth in children and young people; and (3) The history of past successes and failures in education.

Books upon physiology need not be mentioned here, nor ought I to delay you to name treatises on morals. The necessity that a teacher should be furnished with a correct and definite knowledge of the mental faculties and the laws of their growth, is so imperative that I ought to speak positively about some works on mental science. The best, I think, is President Porter's Intellectual Philosophy. It is not easy reading, and it is not written from the point of view of a teacher so much as

from that of an investigator and philosopher. There is need of an intellectual philosophy which shall present the facts of this subject so plainly that young teachers may easily apprehend them, and which shall show, also, their application to the work of instruction. Such a work is already begun, I learn, by a leading Normal teacher of Massachusetts, and is looked for with much interest.* The prize essay of forty pages, read before this Institute a year ago by W. N. Hailmann, entitled *The Application of the Principles of Psychology to the Work of Teaching*, is a valuable contribution to this branch of the subject, and should be widely read. It is published in the American Institute volume for 1883, and also separately in pamphlet form. A very suggestive book is a larger one by Francis Galton, called *Inquiries into Human Faculty and Development*. Some of the theories advanced therein still await adequate proof, but no one can read the book without stimulation to personal study and observation in similar lines. The portions relating to number-forms and color-associations, and that about composite portraiture are especially full of interest.

Most books treating of the principles of education also deal largely with methods of instruction, and a few combine with these, brief historical sketches. Some of the authors treat their subject philosophically and are not careful to render their pages easy to read. Yet if the reading is to make us better teachers, we can endure faults of style, just as we strive to be charitable about

* Since this paper was read, a work fairly answering the need here mentioned, has been published, viz.: *OUTLINES OF PSYCHOLOGY*, with special reference to the *THEORY OF EDUCATION*, by James Sully, A. M., Examiner in the University of Cambridge, (Eng.) New York: D. Appleton & Co., 1884, crown 8vo, pp. 712, \$2 40.

literary blemishes when listening to an earnest sermon. Should we become wearied beyond endurance by an abstruse volume, there always remains the historical side of the matter, and this will ever have interest for us, unless, like Polonius, we are "for a jig or we sleep."

The best presentations in our language of the principles of the science of education come from across the water. Detailed methods seem better worked out in American books. Perhaps the latter fact is due to the circumstance that the authors have devised their methods from contact with materials more like our own; *i. e.*, with Young America.

The one book which is most highly and most generally commended by educators of experience, as setting forth the principles of teaching, is entitled *Lectures on the Science and Art of Education*, by the late Joseph Payne, first professor of this branch in the College of Preceptors, London. Professor Payne was himself educated in a somewhat irregular way, yet became so successful a teacher that in 1863, at the age of fifty-five, he retired from active work with a competency. His investigations and lectures on his favorite topic ended only at his death in 1876. The book referred to contains about a dozen lectures and essays not closely connected with each other, treating of both principles and methods, and giving much historical information. Jacotot was his especial admiration, and next to him Pestalozzi and Froebel. A new edition of his lectures has within a year been published in Boston.

I have said that this book is most highly commended by educators, but it is not the best book for those commencing a course of reading of this kind. It is strong meat, and before undertaking it, readers should wait until their educational teeth are cut.

Next to this in general repute and far better for young teachers, — indeed, the one book of all to be selected for a first reading — is *Lectures on Teaching*, by Joseph G. Fitch, Inspector of Her Majesty's Schools. It is much less abstruse than the preceding and forms a symmetrical whole. Attention is paid in detail to fifteen topics, as, for example, the teacher and his assistants, the school, its aims and organization, the school-room and its appliances, learning and remembering. As a specimen of its interesting style, allow me to read a page upon the preparation of written questions for examination.*

Concerning the two books just named there is a general agreement among educators that they are the best exponents of the principles of education. A third English book is so popular that my own copy, bought in 1882, is of the forty-sixth thousand. It is a small book printed in execrable type. It treats in detail of both principles and methods, is positive and clear in statement and exhaustive in treatment, being, moreover, especially helpful in pointing out remedies for defects in the work of pupils. The title is *School Management*, by John Gill, of the Normal College at Cheltenham. To those who have good eyes, it can be confidently recommended as a very valuable book for its slight cost.

A larger work with the same title, *School Management*, by J  seph Landon, seems also to promise well, but I am not so familiar with its contents.

There is a little book by Dr. Henry Calderwood, treating mainly of the moral aspects of teaching, as self-government, school discipline, formation of character, and home training, in which the thoughts are sensible and clearly expressed. Its low cost puts it within the reach of all.

* Pages 183-185.

Two other English works demand mention here. One is *Education as a Science*, by Alexander Bain, Professor in the University of Aberdeen. This is a logical, complete and interesting review of the laws of the mind on which education depends, with suggestions as to the methods to be used. As the author puts the thought, "the results of experience are tested and amended by bringing them under the best ascertained laws of the mind." The book has been in more frequent use by me for the past five years than any other of the kind. It has been published in this country by a New York firm.

The other book, *Education*, by Herbert Spencer, contains four articles which were originally separate contributions to magazines, but which taken together form a sufficiently compact whole. The first gives to the question, What knowledge is of most worth? the plain answer, Science. The second treats of the principles of mind-growth. The third, on moral education, asserts among several wiser suggestions that the discipline of necessary consequences is amply sufficient for children without the use of artificial punishments. The fourth essay is a much needed expression of the desirability of teaching children a practical acquaintance with the various organs of their own bodies, and the care which each requires. This collection of papers is highly valued by many, and receives praise, perhaps, from a larger number who are glad to agree with an author of such eminence; I have not always found the author's conclusions satisfactory, and am sure that Bain has done me much more good.

Now, lest I be accused of "Anglomaniā," let me direct your attention to one or two books of American origin. In them, however, a reader of retentive memory will often find evidence that the authors have cultivated

the acquaintance of Bain and Spencer, if not of Fitch and Payne.

One of the best of these is *Principles and Practices of Teaching*, by James Johonnot, of Ithaca, N. Y. It gives an outline of the general objects of education, making the common threefold division of the subject into physical, mental and moral education, then briefly, but clearly, describes the mental processes. There follows an explanation of the objective and subjective methods of instruction with very just remarks upon the relative places of both in practical use. Object teaching and its necessary limitations are well presented. Then follows a chapter, seemingly in imitation of Spencer, in which the so-called disciplinary studies are summarily excluded as such, mathematics and the sciences being deemed all-sufficient. The three succeeding chapters deal with Pestalozzi, Frœbel and Agassiz, regarded as teachers, the third alone being of special value. Subsequent chapters summarize the good in several systems of education and treat in a suggestive manner of physical, æsthetic and moral culture. A general course of study through twelve grades is minutely outlined, and the final chapter devotes attention to the somewhat neglected topic of country schools. It is, you see, a very full book.

Another of a similar aim, but more readable in style, is *Methods of Teaching*, by John Swett of San Francisco. This gives a hundred pages to principles of teaching, then follows with condensed directions and working models for teaching the essentials of common school studies. Throughout it abounds in quotations from more prominent writers. It has over three hundred pages of excellent type for evening reading.

I have already remarked upon the power to hold the

interest which the historical side of educational reading possesses. Whatever brings the personality of the teacher before us and represents him in the use of his tools, with his chips all about him, tends to chain our attention. It is, therefore, by a study of the biography of eminent and representative teachers that a view of the progress of pedagogy is best secured. It is best to begin with a somewhat simple account of the whole field. For that purpose, a small volume, entitled *Lectures on the History of Pedagogy*, by W. N. Hallmann, of Laporte, Ind., is excellent. It shows how children are taught in China and Japan, gives the general features of Greek and Roman education, and carries the history on through Bacon, Comenius, Locke, and their successors to Frœbel. Every teacher should read it or some equivalent for it.

A similar book, even less in price, is Browning's *History of Educational Theories*. I have received a letter from a competent critic alluding to it in enthusiastic terms, but cannot myself speak from personal examination of its contents.*

A fuller work, and one to be thoroughly read at some period in our proposed course, is *Essays on Educational Reformers*, by Robert Henry Quick. Beginning with the schools of the Jesuits in 1584, the writer gives with some quotations, concise accounts of the ideas put forth by Ascham, Montaigne, Ratich, and the later writers to Herbert Spencer.

I must detain you a moment longer to allude to books of another type which are hailed with greater delight, I am sure, by the mass of teachers than the more general works hitherto described, because they render more definite

* A subsequent perusal has led me to record a hearty commendation of this book.

aid. These are books devoted to special topics of instruction.

Calkins' Primary Object Lessons and Manual of Object Teaching have long been favorably known. Recently Miss Crocker's little book on Methods of Teaching Geography has attracted attention. But the highest promise appears to reside in the Pedagogical Library, projected by a Boston firm, under the editorship of Dr. G. Stanley Hall, of which library a single volume has already been issued, — Methods of Teaching and Studying History. It includes a translation of Dr. Diesterweg's Instruction in History, and papers on the same subject by Prof. Herbert B. Adams, Prof. C. K. Adams, Prof. John W. Burgess, Prof. Emerton, Prof. W. F. Allen, and Col. Thomas W. Higginson. What a grand symposium on this special topic! It is hard to conceive of a teacher of history to whom it will not be of value. Similar volumes are promised, treating of Ancient Languages and Literature, of Natural Science, and of Reading, English Literature and Language. Success to the enterprise.

I am aware that to some of my hearers I shall appear to have taken a narrow range in my suggestions, to have omitted a number of their favorites, and especially to have disregarded the stores of learning bearing upon our profession in the French and German tongues. This has been necessary in view of the obvious limitations of time and purpose. All such omissions may properly be remedied during the discussion which is to follow.

In conclusion, let me urge the teachers of New England to allow this meeting to begin for them a new era in educational life, — an era marked by a systematic and persistent reading of the principles, methods and history of our high calling. I have aimed to show you that the

difficulties in the way are not insuperable, and that the reward is amply sufficient. You may forget the titles and names which you have heard to-day; but never mind; begin with the nearest author at hand. You can scarcely go astray if you read with judgment and a determined purpose.

At the battle of the Wilderness, a belated commander, on arriving at the front, reported to his superior and asked what position he should take. "Go in anywhere," said the bluff old soldier, "there is good fighting all along the line."

TITLES OF BOOKS MENTIONED IN LECTURE.

1. ELEMENTS OF INTELLECTUAL PHILOSOPHY. By Noah Porter, D.D., LL.D. New York: Charles Scribner's Sons. \$3.00. (An abridgment of HUMAN INTELLECT, by the same author, published at \$5.00.)

2. APPLICATION OF THE PRINCIPLES OF PSYCHOLOGY TO THE WORK OF TEACHING. By W. N. Hailmann, A. M. Boston: Willard Small, 1884, pp. 43.

3. INQUIRIES INTO HUMAN FACULTY AND ITS DEVELOPMENT. By Francis Galton, F. R. S. New York: Macmillan & Co., 1883, pp. 380, illustrated. \$2.10.

4. LECTURES ON THE SCIENCE AND ART OF EDUCATION. By Joseph Payne. Boston: Willard Small, 1883, pp. 386. \$1.75.

5. LECTURES ON TEACHING. By Joseph G. Fitch, M. A. Cambridge, (Eng.) at the University Press. 1882, pp. 436. \$1.60.

6. INTRODUCTORY TEXT-BOOK TO SCHOOL EDUCATION, METHOD AND SCHOOL MANAGEMENT. By John Gill, Normal College, Cheltenham. London: Longmans, Green & Co., 1881, pp. 276. 90 c.

7. SCHOOL MANAGEMENT. By Joseph Landon, Lecturer in the Training College, Saltley. Boston: Willard Small, 1884, pp. 376. \$1.25.

8. ON TEACHING; ITS ENDS AND MEANS. By Henry Calderwood, LL.D., F. R. S. E. London: Macmillan & Co., 1881, pp. 126. 63 cts.

9. EDUCATION AS A SCIENCE. By Alexander Bain, LL.D., Professor in the University of Aberdeen. New York: D. Appleton & Co., 1879, pp. 453. \$1.60.

10. EDUCATION: INTELLECTUAL, MORAL, AND PHYSICAL. By Herbert Spencer. New York: D. Appleton & Co., 1875, pp. 283, \$1.00.

11. PRINCIPLES AND PRACTICES OF TEACHING. By James Johonnot. Ithaca, N. Y., 1878, pp. 395. \$1.50.

12. METHODS OF TEACHING. By John Swett, Principal of the San Francisco Girls' High School. New York: Harper & Brothers, 1880, pp. 326. \$1.00.

13. TWELVE LECTURES ON THE HISTORY OF PEDAGOGY. By W. N. Hailmann, A. M. Cincinnati: Wilson, Hinkle & Co. (now Van Antwerp, Bragg & Co.) 1874, pp. 130. 75 cts.

14. THE HISTORY OF EDUCATIONAL THEORIES. By Oscar Browning, A. M., Senior Fellow and Lecturer of King's College, Cambridge, (Eng.) New York: Harper & Brothers. 55 cts.

15. ESSAYS ON EDUCATIONAL REFORMERS. By Robert Henry Quick. Cincinnati: Robert Clarke & Co., pp. 326. \$1.75.

16. PRIMARY OBJECT LESSONS, FOR TRAINING THE SENSES AND DEVELOPING THE FACULTIES OF CHILDREN. By N. A. Calkins. New York: Harper & Brothers. \$1.00.

17. MANUAL OF OBJECT TEACHING. By N. A. Calkins, New York: Harper & Brothers, 1882, pp. 469.

18. METHODS OF TEACHING GEOGRAPHY. By Lucretia Crocker. Boston: Boston School Supply Co., 1884, pp. 71.

19. METHODS OF TEACHING HISTORY. Edited by G. Stanley Hall. Boston: Ginn, Heath & Co., 1883, pp. 299. \$1.20.

DISCUSSION ON TEACHER'S READING.

HON. J. D. PHILBRICK, Boston: The study of education, its history and methods, is, I believe, the only way in which we can make any advancement as teachers; and such study is especially needed in this country. Unfortunately, however, our teachers have not yet learned to appreciate this need. Few of such books,

in comparison with others, are sold by the publishers. Formerly they could not be obtained, however much called for, now they meet one at every turn, and there is but little demand. Yet they are of incalculable value; for, if a teacher obtains but one idea out of such a book, it pays to read it. In my own case, I may say the reading of one such work turned the whole course of my life. So, I say earnestly to all young teachers: By all means, buy and read these books which relate so intimately to your profession.

SUPT. G. T. FLETCHER, Marlboro, Mass.: In my experience both as teacher and superintendent of schools, I have felt very strongly the necessity of special professional reading. I have also often found teachers, even graduates of colleges—well equipped in the matter of text-book knowledge, etc.—entirely ignorant of the first principles of teaching. We, as teachers, ought certainly to emphasize this need of more professional reading.

SUPT. JOHNSON, Vermont: Instanced his experience of taking a district school just after graduation, without having read any work on education, and, "naturally, proving a failure;" before the next year he read "Page's Methods of Teaching," and from that one book he considered that his teaching was improved, the succeeding year, fifty per cent.

Fifty years ago, he said, professional books were very scarce, now there is a large list and, while it may not be possible to designate the best teachers' books, there is hardly one but can be read with advantage. The psychological questions discussed in the books of the present day are also of special importance to the educator; for some teachers are, or appear to be, ignorant of existence of the various mental faculties; they seem to think that the child is only endowed with memory. As the books now published are adapted to all grades of teaching, there would seem to be no excuse why the lowest as well as the highest should not avail themselves of the opportunities thus presented to them.

DR. A. B. PALMER, Mich.: I am surprised to hear that books on education are not generally read by teachers. In giving instruction in medicine, which I do nine months in the year, I very seldom go into the lecture-room without looking up everything new that can be obtained upon the subject which I am going to present to my class,—medical periodicals as well as books. If I did not do so, I should consider that I was falling behind in my profession.

In passing, I should like to refer to another subject which has been discussed here, viz., the memorizing of certain terms and rules in grammar. I taught school once in the "old, bad way" which we have heard so much about, and must confess to having, to a certain extent, followed this plan of memorizing. And I am not quite certain, to-day, whether it is not best to have some terms and rules so memorized and implanted in the mind, that they may be immediately called up when necessary. We speak from habit and custom, of course, but when we want to examine a work, a composition and so on, we want rules for our guidance. In fact, I think necessary rules may be committed to memory by pupils without much detriment.

E. P. SEAVER, Supt. of Schools, Boston: The last speaker alluded to a question which I think has been running through a good many minds during the discussions at this meeting, *i. e.*, Shall we, or shall we not, have the pupil commit to memory definitions and rules? That seems to be one of the paramount questions of the day among teachers. I merely call attention to this in order to suggest, if possible, the right point of view from which to approach this question. I suppose, all agree that definitions are necessary, but the difference between the old and the so-called "new" method is that formerly the teacher commenced with definitions and rules, which were then committed to memory by the pupil as a mere form of words. In opposition to this, the modern teacher first familiarizes the mind of the child with the thing itself, creates the occasion for the use of the name or term and then the name comes as naturally as possible. When the child has been through a few of these operations, enough to discover the governing principles, and has put these principles to service, it is time for the rule;—and then the rule has some meaning, and may be committed to memory. But the "ostrich" theory of cramming, now grown old and indigestible is, I hope, gliding into the past. And one of the best helps to this end is—wide professional reading. I am forced, however, to endorse what has been said by Dr. Philbrick, that teachers do not sufficiently read educational works. Doctors seek for the latest medical literature, lawyers eagerly look for any new phase in legal questions, their professional literature is in constant demand; but that teachers do not read educational works is too sadly true. An instance

that came under my own observation may illustrate this point. Two years ago at an examination of teachers in Boston, we made this request: Give a list of the educational books which you have read at any time within the past five years, with a brief statement of the character and aim of each work. The object was to ascertain what educational works teachers were generally in the habit of reading. I personally examined the answers to the question. I have not now the exact figures at hand, but I can say this: The entire list given by the majority of these candidates consisted of but one title, — the request asked for books, — the title given was, *The New England Journal of Education*. No doubt such reading is good, but it is not a pedagogical work in the meaning desired.

PRINC. J. MACDONALD, Stoneham, Mass.: I have also had some personal experience in this line. A year or two ago, after selecting the special study in which each of my teachers excelled, I submitted this question to them: State what object you have in view in giving this instruction. Not one could tell what definite object they had in view. I am afraid that the mere reading of professional books, however, will not accomplish the desired end. We must think about the subject more. Better one book with much thought than many books with no thought.

Teachers should also, I believe, have some object in view when teaching their pupils; the worst motive is to be preferred to no motive.

Returning, however, to the question of professional reading, it is not true that a large majority of teachers do not read text books as doctors read medical books. The trouble is not that they do not read text-books as doctors read books of similar import, but that they do not read books on the *theories* and *principles* of their profession.

DR. PALMER: Professional books have the same application, both for doctor and teacher; and each should read those pertaining to his profession.

MR. MACDONALD: With doctors it is simply the practice of medicine, but with teachers, they not only have to know their subject, but have to know how to teach it, hence they have need of a wider range of reading.

SUPT. T. D. ADAMS, Plymouth, Mass.: I heartily endorse all that has been said as to the need of a teacher reading professional literature; but as the lawyer and doctor need to be men as

well as lawyers and doctors, so does the teacher need to be something besides a school-master. To the question, what are you reading? teachers sometimes tell me something besides *The Journal of Education*, but to my question, what are you studying? I seldom get an answer. I believe, however, that some special pursuit or study is as necessary to the teacher as professional reading, whether it be language, mathematics, or other subject, so that it be followed faithfully. Often the best student is the best teacher.

D. N. CAMP, New Britain, Conn.: It may be interesting in this relation to know that a committee has been appointed by our Council of Education to collect from educators of this country and Europe the best list of books for a teachers' professional library. Up to this date, a list of some forty or fifty valuable books have been catalogued; but in looking over the list I have been struck with the fact that very many of these books cannot be obtained in this country. Publishers, in reply to my request to print such books, always answer that teachers' professional books are published at a loss, and hence their scarcity and high price. I hope, however, the time is not far distant when a list of the best pedagogical works in English, French, and German will be at the command of all, so that those teachers who choose to read will see what has been commended by those engaged in the work in various parts of the world. Such a list will do much towards making the science and art of teaching a certainty. To-day, each new teacher has to be a pioneer in his work.

SUPT. KELSEY, Ohio: As the lecturer asked us to name what books, not mentioned by him, we had found useful, I would say that "Kirby's Art of Teaching and the Teaching of Music," published by Bigelow & Main of New York, has been to me a more helpful work on teaching than any other that I have been able to obtain. It brings together in the compass of one book much upon the theory of all teaching, though its title would seem to confine its scope to the teaching of music. The author, evidently a voluminous reader, gives, also, the views of many of the best European educators.

PROF. F. A. FORDSON, N. C.: In the South we have unfortunately very little of pedagogical reading matter, and what is worse the lack does not seem to be very generally felt. In the late meetings of the State Teachers Associations of Georgia and

North Carolina, the subject was not even alluded to. We are hoping, however, and many of us I know will try, to introduce more of this professional reading.

PROF. G. E. CHURCH, Prov., R. I.: I was very glad that Mr. Huling, in his paper recommended the class of books he did: books treating upon psychology and the history of teaching. Too many teachers to-day take up a special work on methods, such as "Calkins' Object Teaching," and straightway go into their school-rooms with a determination to make a great effort with "object teaching," but how many have soon to acknowledge their utter failure?

As to Payne's "Lectures on Teaching," which have been mentioned, I may say that my first reading of that work gave me one very valuable idea. Up to that time I had been endeavoring to do a "great quantity" of teaching, illustrating all that was possible on the blackboard, methodically and carefully. Yet with all my laborious efforts I seemed to get very inadequate returns from my pupils. The helpful idea I got from that book was, Don't do *too much* for the children; make them think for themselves—teach themselves—under your direction. Consequently, I have long stopped doing all the talking. To-day, I do as little as possible, and so far as my experience goes, the corresponding mental growth and power on the part of the children is seemingly remarkable. They are, now, not only able to answer questions on a topic, but to ask questions. The recognition of that one principle in child growth will, I believe, improve any teacher who has been working upon the old plan.

MR. G. T. FLETCHER: An important matter in this connection is, How to accomplish the desired end; How to obtain the necessary books. As a Superintendent, when talking to my teachers of the desirability of such reading, I suggested the following plan, Let each teacher invest one dollar in a teacher's library fund, which library shall be made up of professional books. We can thus purchase collectively what we cannot afford singly, and so obtain the necessary reading. We have done so, and have met with great success. In the present town with which I am connected, the school committee are also members of the public library committee, and we have enlisted them so much in this cause that they are putting, in the public library, books on methods of teaching; thus all may read who will.

XI.

NOT "A COLLEGE FETISH."

BY D. H. CHAMBERLAIN.

My present task is wholly self-suggested and self-imposed. It is simply an attempt to meet and controvert the arguments and opinions of the address of Mr. Charles Francis Adams, Jr., delivered in June last, before the Harvard Chapter of the Fraternity of the Phi Beta Kappa. I cannot say that I am called or moved by any sense of personal fitness or duty. The lines of my life lie, as they have lain, quite aside from the walks and ways of scholars. I can only say that the studies, reflections and experiences of my life have greatly interested me in this subject, and that I have some hope that what I may say will tend a little to more correct views and more intelligent opinions upon the matters which I shall try to discuss.

The address of Mr. Adams has naturally and deservedly attracted much attention. His public services and character, his position as one of the representatives of an illustrious family, the vigor and courage of his address, the confidence of his tone, the personal and family illustrations which enliven his arguments, have united to give freshness and force to this latest discussion of an old and well-worn theme.

I assume and believe that Mr. Adams was very much in earnest in this expression of his opinions and experiences. I shall certainly treat his discourse as a serious

discussion and honest statement of conclusions. Whatever criticisms may be made upon it, we ought, I think, to welcome it as a specimen of outspoken, vigorous opinions upon a theme of the very highest importance. If, as Mr. Adams thinks, nearly the whole cultivated world is still indulging in a most important feature of its higher education, in "fetish-worship"; in an absurd and unreasoning attachment to studies which are not suited to present wants, nor conducive to present success — which are not only a waste of time, but by their compulsory requirement are excluding better studies, it is the right and duty of any earnest man to challenge the claims of such studies; and the more securely they have become entrenched by custom and prescription, the greater is the duty of those who see or think they see their real hollowness and comparative worthlessness, to expose and denounce the pretensions and false claims by which they have been supported. It is not sacrilege, surely, to destroy a "fetish"! None of us, I presume, wish to continue to worship a "fetish." If, unhappily, we have been worshipping one, I am quite sure we should all welcome, as we ought to do, the voice that should expose, and the hand that should destroy even *our* "fetish." But old delusions retire slowly; "fetishes" even, long worshipped, will struggle for a little longer recognition, and so, inevitably and finally, Mr. Adams must expect that men will still ask, what *is* a "fetish"? and is that which in his address, at Cambridge, he describes and denounces as a "fetish," a *real* "fetish," after all? That is the serious question — a question which I think is always one of deep interest, worthy of the best consideration, the most unfettered discussion which any man can bring. If the study of Greek can be shown to be "fetish-worship," if it can be shown to

be less than the best use that can be made of the time of our youth, for their highest and best success — success in all its senses and forms — then let it cease, and let better implements of mental training take its place.

In the task which I set before me — the only task I attempt — of replying to Mr. Adams — it is necessary to observe his exact positions, so far as they are disclosed by this address. Much misapprehension exists on this point which ought to be at once corrected, and for which Mr. Adams is not responsible.

Let me quote Mr. Adams's words, which state his main demand and conclusion :

"The modernist asks," he says, "of the college, to change its requirements for admission only in this wise: Let it say to the student who presents himself, 'In what languages, besides Latin and English, those are required of all — in what other languages — Hebrew, Greek, German, French, Spanish or Italian, will you be examined'? If the student replies, 'In Greek,' so be it; let him be examined in that alone; and if, as now, he can stumble through a few lines of Xenophon or Homer, and render some simple English sentences into questionable Greek, let that suffice; as respects languages, let him be pronounced fitted for a college course. If, however, instead of offering himself in the classic, he offers himself in the modern tongues, then, though no mercy be shown him, let him at least no longer be turned contemptuously away from the college doors; but instead of the poor quarter-knowledge, ancient and modern, now required, let him be permitted to pass such an examination as will show that he has so mastered two languages besides his own, that he can go forward in his studies, using them as working tools."

This is a fair-sounding proposition :— Do not make Greek compulsory — leave it optional. But it involves just this question and consideration — whether Greek is or is not the best implement for doing the proper work of the college? The fact that some or many wished to take German or other modern language, in place of Greek, would not be even an argument in favor of allowing them to do it, unless it was first determined that German or some other modern language, could equally well do the work for which the college exists.

Let no one here charge me with illiberality, for it is Mr. Adams who, in this address, tells us, "In regard to the theory of what we call a liberal education, there is, as I understand it, not much room for difference of opinion. There are certain fundamental requirements, without a thorough mastery of which no man can pursue a specialty to advantage. Upon these common fundamentals are grafted the specialties."

Again he says, "I think all will admit that, as respects the fundamentals, the college training should be compulsory and severe. It should extend through the whole course. No one ought to become a Bachelor of Arts until upon the fundamentals, he has passed an examination, the scope and thoroughness of which should set at defiance what is perfectly well defined as the science of cramming."

Mr. Adams and the advocates of Greek are, then, in complete agreement on these initial positions ;—*first*, that there must be a fixed and compulsory course of study, embracing certain studies which he has well enough called "fundamentals"; *second*, that as to these "fundamentals," the training should not only be compulsory and severe, but that it should extend through the whole course; and *third*, that upon these "fundamentals" no one should be

admitted to the degree of Bachelor of Art, who has not passed a rigid and thorough examination.

These positions seem to leave only the question — what ought these “fundamentals” to be? If we can determine that question our controversy ends; for no man can dispute with me about the need of the utmost attainable thoroughness in all college studies, or the correctness of what Mr. Adams calls “the greatest of all practical precepts—that every man should in life master some one thing, be it great or be it small”; that “superficiality is dangerous as well as contemptible”; that “what is worth doing at all is worth doing well”; or, “finally,” to quote still from Mr. Adams, “that the power to follow out a line of sustained, close thought, expressing ourselves in clear, concise terms,” is the result of “a mastery of well-selected fundamentals”; or, that a familiar knowledge of the modern languages is needful for the best success in many of the pursuits and studies of modern life, and that these languages embody the best results of modern thought, modern science, and modern attainments of all kinds.

I observe, with sincere pleasure, that Mr. Adams is not a champion of the so-called scientific training in distinction from the classical or literary. Upon this point it is pleasant to quote from Mr. Adams: “I desire to say,” he remarks, “that I am no believer in that narrow, scientific and technological training which now and again we hear extolled. A practical, and too often a mere vulgar, money-making utility seems to be its natural outcome.”

I see no trace, likewise, in this address, of approval of an extensive system of optional or elective studies in a college course. Judging him by the whole tenor of his discourse — by what he most insists upon — Mr. Adams

may be called orthodox and conservative on all these questions.

Let us first see, then, what are Mr. Adams's reasons for *not* putting Greek among the "fundamentals."

In his judgment, Greek is in general too remote from modern life and thought; "The human mind, outside of cloisters," he says, "is occupied with other and more pressing things," especially with "scientific thoughts"; students are now brought up in a "new atmosphere," and are "not in sympathy with the remote past," and as the modern languages are the avenues to modern thought, they should be the college studies in preparation for modern life. Of Greek he says: "Not only is it a dead tongue, but it bears no immediate relation, to any living speech or literature of value."

It is true that Mr. Adams in several instances concedes and asserts the value of Greek and Latin, declaring, for example, that no one can admire more than he, "the subtile, indescribable fineness of thought and diction which a thorough classical education gives to the scholar." Elsewhere he says, "Of Greek really studied and lovingly learned, there cannot well be two opinions"; it is "the basis of the finest scholarship"; yet he finally says, "There is, in what are called the educated classes, both in this country and in Europe, a very considerable amount of affectation and credulity in regard to Greek and Latin masterpieces. That is jealously prized as part of the body of the classics, which if published to-day in German or French or English, would not excite a passing notice. There are immortal poets, whose immortality, my mature judgment tells me, is wholly due to the fact that they lived two thousand years ago." He declares as the result of all his experience and observation that "whether viewed as a

thing of use, as an accomplishment, as a source of pleasure, or as a mental training, I would rather myself be familiar with the German tongue and its literature than be equally familiar with the Greek. I would unhesitatingly make the same choice for my child. What I have said of German as compared with Greek, I will also say of French as compared with Latin. On this last point I have no question. Authority and superstition apart, I am indeed unable to see how an intelligent man, having any considerable acquaintance with the two literatures, can, as respects either richness or beauty, compare the Latin with the French; while as a worldly accomplishment, were it not for fetish-worship, in these days of universal travel the man would properly be regarded as out of his mind, who preferred to be able to read the odes of Horace rather than to feel at home in the accepted neutral language of all refined society."

Mr. Adams takes some positions from which indeed it is difficult to dislodge him. When he declares that in the Harvard of his day he was "compelled to devote the best part of his school life to acquiring a confessedly superficial knowledge of two dead languages"; that "not only was the knowledge of our theoretical fundamentals to the last degree superficial, but nothing better was expected"; that "the fundamentals were no longer studied as a means, but as an end — the end being to get into college"; that "thoroughness of training in any real-life sense of the term was unknown in those branches with which I came in contact"; he speaks of matters of which his knowledge ought certainly to be better than mine. I do not intend to be disrespectful to Mr. Adams when I say, however, that I do not believe that this is a fair or just account of the instruction in Harvard thirty years

ago or at any other time ; and that I do not believe any considerable number of Harvard graduates will sustain Mr. Adams's assertions.

But the question here is not whether Greek is taught or has been taught at Harvard in the manner which Mr. Adams represents, but whether if taught, as all will concede it should be taught — in the best practicable manner — it is still a "college fetish."

Mr. Adams does not state explicitly the objects which he conceives are to be specially sought by the compulsory study of the "fundamentals," — though he does say, "The whole experience and observation of my life lead me to look with greater admiration, and an envy ever increasing, on the broadened culture which is the true end and aim of the University." "On this point," he says, "I cannot be too explicit, for I should be sorry indeed if anything I might utter were construed into an argument against the most liberal education. There is a considerable period in every man's life," he continues, "when the best thing he can do is to let his mind soak and tan in the vats of literature. The atmosphere of a university is breathed into a student's system — it enters by the very pores." . . . "I would not narrow the basis of liberal education ; I would broaden it."

I understand myself, therefore, to be standing with Mr. Adams on this proposition — that a broad culture, the broadest culture, a liberal education, the most liberal education — a culture and education which shall pervade the mind and spirit as the breath pervades the body — is the true end and aim of the Collège — that is, of the disciplinary training which precedes entrance on the active, responsible work of life. Certainly, I regard this proposition, entirely drawn in spirit, and almost in terms, from

Mr. Adams's address, as a correct and somewhat adequate general statement of the end to be sought by a compulsory requirement of the "fundamentals," whatever they are. It may, then, be laid down again for the purposes of this discussion, with the concurrence of Mr. Adams, as it has often been laid down, that college studies — "the fundamentals" — should have for their chief and controlling object the training, discipline, *education* of the mental faculties; that the end and aim of a college curriculum — the prescribed and enforced plan of study — should be always the general development, direction, inspiration and education of the mental powers. Mental power, the power and faculty to organize and direct the forces of human society — the wants, desires, interests of men — is, in the only sense here under consideration, the object of education.

It appears to me perfectly obvious, and it has so appeared to the wisest educators in all modern times, that the foremost means to such an end is the study of language — the careful, thorough, long-continued study of the principles, structure and uses of language. The languages and the mathematics — the faculty and art of expression in language, and the habit and power of accurate, systematic reasoning — constitute and have in modern times constituted the means of education, in this sense. Along with these, as a matter of necessary information or knowledge, goes the study of history, geography and something of what we call natural science; but language and the mathematics are the chief disciplinary agents. Beyond a very narrow limit of mere utility for the commonest wants of life, the aim and value of the study of language and the mathematics, in schools and colleges, are disciplinary. Now, one seldom, if ever,

hears the study of the mathematics opposed or derided. They stand generally unchallenged,—why? Not because, beyond a very narrow limit, they are used or are expected to be used in the work of life. Like the use of the physical gymnasium and its appliances, the further study of the mathematics is left to the leisure, the taste or the sense of duty of the individual man when engaged in the active pursuits of life. There can be no doubt that a life-long pursuit or study of the mathematics would promote the strength and facility of the mental powers, just as a frequent or regular recurrence to the gymnasium or the athletic sports of youth would continue to give strength and endurance to the body.

Why, then, do the mathematics stand unchallenged in all our prescribed courses? I suppose no other answer can be given than that the mathematics are held valuable, essential for intellectual training; and that the fact of their almost complete disuse in after life is not held to affect their value as means of mental discipline in schools and colleges.

Now, I do not think the reasons why the study of language and the art of using it are held to be essential to the best mental training, are hard to understand. Language is the universal medium of thought, the chief, almost the only vehicle by which thought in all its forms is, or can be communicated. In a strict and very high sense, language *is* thought. Reason, reflection, emotion—all the highest powers of human nature—must seek language for expression and for influence on men. The tones of music, the tints of painting, the forms of sculpture are indeed modes of expressing thought, but ordinarily a man's power, his mental power, his power to influence other men, is measured by his power to express thought in language.

If, then, language is the vehicle of thought, the condition of making thought and the mental faculties, influential, the study of language—its nature, its structure, its uses, its capacities, its highest manifestations, its noblest and most powerful forms—is necessarily the first and highest instrumentality for developing, training, educating the mental powers—absolute in its necessity, first in order of time, highest in the scale of importance.

The study of language is, therefore, in no sense a mere prescription of the schools, an ancient educational superstition, a "college fetish." It is a primordial necessity for the exercise of the human mind and reason, for the unlocking, the development of one's own powers of mind, for influencing, guiding, and controlling the minds, actions, and lives of other men.

We are now, I think, at a point where the question becomes simply, what languages—what forms, what growths and developments of language,—are best suited for instruction and training in the knowledge and art of using language?

In answering this question, certainly no language, no literature can be put aside because remote in time; no language, no literature which in itself is of high value for its structure, its power or its beauty, can be described, as Mr. Adams has described the Greek language and literature, as "bearing no immediate relation to any living speech or literature of value." I hold it to be obviously a matter of little or no moment in answering this question, whether the language selected as a "fundamental," is now spoken on the continent of Europe or of America, or whether it disappeared as a spoken language two thousand years ago. The only consideration is, what can a given language, what can the study of a given language,

do for us to-day in the training of our mental faculties and in teaching us how to use the language to which we are born? In the matter of the choice of a language for this purpose I *might* appeal for what I confess I should consider a conclusive answer, to the opinions and practice of the learned and wise in these matters of all ages. For, without important exception, it might be said that in all times, and in all cultivated lands, since the conquering Roman eagles were planted on the Acropolis of Athens, and Greek national life expired, and her language in its ancient purity and prevalence ceased to be the spoken language of a powerful and independent nation, the Greek language has been regarded as the most perfect form of human speech, and its study has been regarded as the best means of intellectual training, and of teaching the art of using language.

But I am not quite willing to pause with this answer. Those who call the study of this language a "fetish," I am afraid, might still say that other superstitions, too, have survived all the mutations of time, and are still flourishing to-day.

In what, then, it may be useful to ask, consists the superior value of the Greek language as an instrument of educational training or a means of teaching us the best and most effective use of our own tongue?

I cannot pause here to attempt to explain how the great fact of the Greek language, the Greek literature, the Greek nationality, the Greek character, came about. No subject could well be more interesting or more important in some aspects of this theme. That on the little triangular peninsula of Greece, a region for the most part rocky and mountainous, a soil in general thin and poor; while Asia on the East presented only vast despotisms.

supported by all the appliances of Oriental servitude and superstition, without literature, without freedom, or the hope or desire of freedom; while Rome, on the West, was struggling for existence on the Italian peninsula, and the pall of barbarism was spread over all the rest of the continent of Europe; five or six centuries before the birth of Christ; more than twenty centuries before America was discovered; there arose and grew up a people and nation whose achievements in literature, oratory, poetry, philosophy, art, government — in all the arts of War and Peace — not only made them the foremost people of that age, but have extended and perpetuated their influence through all the phases of mediæval and modern history and civilization, and throughout all the cultivated nations of the modern world; — this, I conceive to be the most remarkable single fact, arising from what we are accustomed to call natural causes, which the whole history of man presents. But of all this no part can be touched here.

Great in all ways as is the fact of Ancient Greece — her valor, her art, all the forms of her social achievements — it is to the perfection of her language and literature that all the cultivated world has done its heartiest homage. In what then, I repeat, consists the value of the Greek language as an instrument of educational training for us?

It consists, first, in the fact that the Greek language is an *ancient* language; in the remoteness of the period in which it arose and took its form. The Greeks were the first people who played a conspicuous part in history, whose social life, politics, manners, literature, were the outgrowth and product of human reason and the spirit of freedom. The controlling forces which moved and in-

spired the people who gave Greece her character, and moulded her destinies, were reason and the love of freedom, personal, social, political freedom. But this language, in addition to being the mould and form which reason and the spirit of freedom first took, was also in a strict sense a *growth*, the result of the fusion, contact, intermingling of distinct dialects, the related parts or fragments of an organic whole.

No one who has ever examined this subject has failed to see that the Greek language and its literature were, in the completest and most absolute sense, *growths* — as natural and original as any growths of physical nature. The Greeks had no models. Their language, except in its most primitive forms, their literature in all its great forms, were original productions of their own. The three great factors of the language — the light and rude Æolic, the strong and grave Doric, the soft and liquid Ionic — each had its separate growth, influenced and determined simply by the great natural environments and conditions, of race, locality, and intercourse.

In its most perfect development, the Greek language presents, therefore, a linguistic growth which in the main, and to a degree greater than any other, was natural and regular, according to the genius and spirit of one people, yet not confined to one mould or form, but enriched and enlarged by the mingling of three principal, well-defined, well-developed dialects.

Not only was this the manner in which the Greek language arose, but in this process of growth, its structure and vocabulary became to the highest degree artistic, flexible and rich. Nothing here is more remarkable than its purity, its freedom from foreign influences. Leaving out of view those questions concerning the origin and original

relations of the different members of the great family of Indo-European languages — questions about which only learned specialists in philology can be profitably concerned — it may be safely said that no language, ancient or modern, is so original, so completely developed according to the spirit and genius of the people who used it.

To all these characteristics are to be added its beauty and power, and their development into the Greek literature.

It is difficult, of course, to demonstrate the truth of what has just been laid down, to those who choose to deny or discredit it, but among those who profess themselves competent to judge, or among those whom others would judge competent, I know of no important dissent from the claims which have now been made, namely, the pre-eminence of the Greek language among all languages in purity, power, and beauty, and the pre-eminence of the Greek literature among all literatures, in the perfection of its style and form.

And if it be true that the Greek language presents these qualities; if it is in a superior degree original and underived; in growth and development regular and natural; in vocabulary and form rich, flexible, powerful and artistic, then surely its study is adapted to the work of training and educating the human faculties in the knowledge and practice of language, the art of expression in language, which we have already seen, is at once the condition and means of the exercise of intellectual power.

The fact that it is an ancient language, the growth of an age when what we may call the intellectual order of the world was fixed, when the laws and methods of intellectual work and action were first determined, adds directly to its value as an implement of education. It is a

completed growth. Its fairest flowers, its richest fruits, appeared many centuries ago. There in the distant past it lies, the fair perfected growth of the young intellect of the world; product of intellectual forces which are still, always and everywhere, the source and inspiration of literature and science; true to nature and fact; pervaded, moulded, lit up by the very spirit of intellectual freedom, love of knowledge, and the sense of beauty.

To study Greek is, then, to study the sources of artistic, cultivated language; to study a language more original in its forms and structure, more powerful, more subtle, more expressive, than any living spoken language, as well as a literature unequalled, in its exhibition of the capacities of human language.

For if the Greek language presents these advantages for the study of language — its origin, growth and structure — the Greek literature, the best products of this language in the period of its most perfect development, presents in form and style the highest specimens of the literary art. Here I desire to state the claims of Greek literature with accuracy and moderation. I do not mean by any means, and I do not understand the classicists so-called anywhere to mean, that Greek literature expresses the best results of human thought in science, morality, philosophy or religion. It does not; it could not. Greek literature was produced in an age of the most limited knowledge of the great subjects which most concern men in modern times. It is not in Greek literature of the classic period that we find what may be called the best results of human thought as applied to the material world of nature and life, or to those problems which concern the present moral duties or the future destiny of man. The materials of modern literature are incomparably

richer, the results of modern thought are immeasurably more valuable and beneficent.

Let us concede and assert all this; yet it remains true that the Greek mind was unequalled in its mastery of all the materials of knowledge then available for the discovery of the rules of thought, the absolute and true intellectual methods; while in a certain sense of proportion, a due measure and moderation of spirit in all their literary work, they have succeeded in giving unquestioned rules to all who have come after them. "For," says Lessing, "it was the privilege of the ancients never in any matter to do too much or too little." The result has been that while as sources of knowledge on most themes which concern the world of modern thought and life, Greek literature offers comparatively little, yet as the means of instruction in methods of thought, of composition, of literary arrangement, especially of all the methods and arts of expression in written or spoken language, unfailing and absolute literary taste, no literature is comparable to the Greek.

Here we find again the qualities which we most need in the work of education — not the facts of science, nor the marvellous laws of the material world which modern science has discovered, not the final truths or highest principles of morality and religion of which the modern world is possessed; but a language, a form of speech, a method of intellectual work, of literary production, which has since stood to the whole literary world, including every cultivated age and nation, as the best example and final test of literary excellence; for I think the French critic, Ampère, expressed the feeling and judgment of those who have most deeply studied many literatures, in saying that whenever he came back from other studies and reopened Homer or Sophocles, he was forced to ex-

claim — *Voilà la beauté véritable et souveraine : jamais il ne s'est écrit rien de pareil chez les hommes.*

I wish to avoid all mere eulogy here, and I take leave to point out specifically where and in what, I think, lie these excellences of Greek literature.

There were in Greece, as there are now, four great divisions of literary work and activity, which engaged the highest efforts of the greatest minds — poetry, history, oratory, philosophy.

Now in each of these departments Greek literature presents one or two names to which I think succeeding ages offer no equals. Consider, first, the poetry of Homer, undoubtedly the most valuable poetical monument the world contains. The two great Homeric poems are concerned with themes apparently the most remote from the modern world. The characters are grotesque deities and legendary heroes. The scenes and events lie in the cloudland of mythology and tradition, having little foundation in historic fact. The sentiments of the poems are often, perhaps generally, those of a society but partially touched by the softening, humanizing influences of what we call civilization; yet these poems speak the same voice to all ages. They are simple pictures of human action and feeling; they do not seek primarily to teach morals, religion or politics. Their interest is purely dramatic; but no one who has ever read Homer intelligently, in the original, has failed to find here, to a degree quite unequalled elsewhere, the four qualities which Mr. Arnold has enumerated — rapidity of movement, plainness and directness of style, plainness and directness of ideas, and nobleness of treatment. These are, I suppose one may say with confidence, the very highest qualities of narrative or epic poetry. So that if it is desirable that

our youth should be taught by an acquaintance with the highest examples of such poetry, it is clear that the poems of Homer must be studied.

So in tragedy or tragic poetry, *Æschylus* stands in a similar relation to all the literature which has since been produced. Not only was he the founder and father of Greek Tragedy as a form of literary production, he was likewise, the inventor of the drama as a form of imitative Art, and his themes, his ideas, his tone, the color of his genius and spirit as now shown in all his principal works, are lofty, pure, earnest, in the highest degree. There are passages in the *Eumenides* and *Prometheus Bound* which as specimens of literary art and intellectual power, as well as of high and stern morality, are worthy to stand as models forever. Not to know *Æschylus* is not to know what was first in time, and is perhaps highest in conception and style in the whole range of tragic poetry and dramatic art.

And undoubtedly in the art of historical writing, in historical narrative, or disquisition, or judgment, there is no name that can be placed on an equal elevation with *Thucydides*. He was the first writer who treated history philosophically, that is, regarded its outward features as the strict result of causes which it is the historian's proper task to discover and point out. His tone is judicial and elevated, his analysis deep and penetrating. But I can never help thinking that the literary merits of his work form his highest title to our study and reverence. He is a great example of *Lessing's* remark already quoted. His principles of art were so fundamental that no feelings aroused by the events of his narratives ever betray or hurry him beyond the just limit of expression or judgment.

His relations, too, to the growth of Greek prose give a

special value to his writings as studies in language. He wrote in what has been called an "ante-grammatical age," and he fixed as much as any one the rules and canons of artistic prose writing of which he was at once author and exemplar.

But in the great art of oratory, the most powerful and attractive of all forms of literary art, Greek literature presents Demosthenes. For my own part, there is hardly a career in statesmanship, and the conduct and shaping of public affairs, which seems to me better deserving the study of the statesman of to-day. The period in which he lived, the forces with which he dealt, the results which depended on the events with which he was connected, form a chapter of political history of the highest intrinsic interest and value. His public aims and methods, his personal and public character, his devotion to high principles and ideals of duty, make him an historical figure worthy of perpetual observation and admiration. But in the field of oratory, in the preparation and delivery of public speeches, lies his pre-eminent claim to greatness. Here it is hard to say which of many supreme merits he exhibits in highest degree. A severity of style which never fails, a subordination of all the arts and devices of rhetoric to the orator's great purpose; but with all this, elevation of sentiment, power of demonstration, wealth of illustration, passion of appeal and persuasion, patriotic ardor — a combination to which no trait of power or beauty seems wanting, and which apparently exhausts the capacity of language — this is the oratory of Demosthenes.

In the field of philosophical speculation, the search for ideal truth, logical, metaphysical, ethical, psychological, and political, Greek literature has given us Plato. And of the works of Plato it may be said that, apart from the

thought which they contain, they are true literary masterpieces.

Of Plato's philosophical speculations and conclusions, this also is true, that the impulse which he gave to speculative thought, and the methods he pursued have left the deepest traces in all subsequent thought and literature. "Plato," says Emerson, "is philosophy, and philosophy, Plato, — at once the glory and the shame of mankind, since neither Saxon nor Roman have availed to add any idea to his categories."

Then came Aristotle, who covered the whole range of thought of his age, carrying speculative philosophy to its highest results, and devising and stating the methods and laws of all intellectual inquiry. He was also the first writer who can be said to have written the history of philosophy, while in the art of classification, in accumulating and systematizing knowledge or facts, and in the scientific method of treating all subjects, in analytic insight and power, he remains still the first in time, and in many respects the greatest of the world's teachers.

Such, in a meagre and most limited statement, are some of the contents of Greek literature. In all the departments of intellectual exertion to which they severally belong, these are the original sources, the earliest great examples. Their influence, as a matter of fact, has been powerful and continuous in all the intellectual history and progress of the world. All literature of value, as a matter of fact, has been strongly affected by the Greek authors whom I have named. However much the objects and materials of literary art have changed, however many of the conclusions or teachings of Greek philosophy have been disproved and rejected, the intellectual processes and

literary standards which Greek literature first illustrated and enforced, have survived and are in use now.

No man, then, can aspire to become cultivated in these leading departments of intellectual effort, or to become familiar with the progress and results of the intellectual history of mankind, unless he deeply studies Greek literature.

And if to this consideration we add what is indisputable and obvious, that translations can never perfectly, and rarely adequately reproduce the meanings and impressions of the original works, the conclusion cannot be avoided that an acquaintance with Greek literature, through a knowledge of the Greek language, is and must be, whether required by schools and colleges, or not, an indispensable means for laying the foundation of the broadest culture, the most useful and effective mental training. The Greek language and literature are thus, whether we will or not, a "fundamental requirement," "without which," in the words of Mr. Adams, "no one can pursue a specialty to (the highest) advantage."

As soon as one really reflects on this matter, and seriously inquires what is, by its nature and office, "fundamental," to a high, or strong, or useful, or adequate training and culture for the work of modern life, he finds that by no convention of scholars so-called, in deference to no long-cherished superstition, through the worship of no "fetish," but by a necessity arising from the plain facts of the world's intellectual and literary history, the Greek language and literature are the only key to much that is the most valuable intellectual and literary treasure of the world.

But not the least, perhaps the greatest superiority of Greek literature is in what is usually called its style — the quality which Mr. Lowell has lately reminded us, is "the

only warrant of permanence in literature." By this term is not meant the mere artful use or arrangement of words and sentences, or any devices or conceits of expression. Greek literary art is moral in its qualities. It consists in the simple honest adaptation of language to its proper uses and ends. We hear often such phrases as "classic tinsel," "classic formalism." No one who knows Greek literature has failed to see that Greek literary art, Greek literary taste proscribed, in theory and practice, all mere ornaments of language, all verbal tricks or expedients, and sought to present thought in natural, simple, noble forms alone. To speak or write classically is, in truth, to speak or write, above all things, with the most direct reference to the simple setting forth of thought; of tinsel, of formalism, Homer, Æschylus, Thucydides, Demosthenes, Plato, give us absolutely nothing.

But the Greek literary spirit went deeper than this. It imposed and developed a moderation of tone, a justness of judgment, a measure and repose of feeling, a proportion of treatment on all subjects, for which there is no other present term of description than *classical*.

Here, then, are the studies and examples which are fit to train the youth of all times and nations in the noblest forms and uses of language, to teach and enforce true literary art and taste, — which ever consists in using language for the natural, direct, attractive, and powerful expression of ideas.

I state these results of an examination of the Greek language and literature, and the most ample proofs might be given by examples if time sufficed. But perhaps I may be allowed to illustrate the genuine simplicity and directness of Greek thought, even in poetry, in contrast with modern, by a single example.

The passage near the close of the 18th Book of the Iliad, which describes the newly-forged armor of Achilles, the workmanship of Vulcan, and the gift of Thetis to the ideal martial hero of the Greeks, has long been reckoned one of the finest in classical literature. In closing his famous 7th of March speech, Mr. Webster, alluding to the vast extent of our territory, said: "We realize on a mighty scale, the beautiful description of the ornamental border of the buckler of Achilles: —

"Now, the broad shield complete, the artist crowned
With his last hand, and poured the ocean round;
In living silver seemed the waves to roll,
And beat the buckler's verge, and bound the whole."

This is Pope's paraphrase, I will not say translation, of two lines of Homer's description of the shield of Achilles, and it is a striking illustration of what Mr. Arnold calls Pope's artificial, intellectualized, literary manner and language.

Now in contrast with this, let one read the original lines of Homer:

*Ἐν δ' ἐρίθῃ ποταμῶιο μέγα σθένος Ὀκεανοῖο,
ἀντυγὰ πύρ πυμύτην σάκεος πύκα ποιητοῖο,*

and he will know what is meant when it is said that simplicity and plainness of expression are found in the highest degree in Homer, and how by the simplest means the Greek genius reached the highest and noblest results in poetry.

Mr. Adams gives us a list of English authors whom he holds up as worthy to supersede the Greek authors, who now represent for us the Greek language and literature, but there are not more than two or three among them all, who did not owe the training which gave them their mastery of the English language to studies of the classical lan-

guages and literatures. This is true, equally true, of any similar list of great writers in German and French. Goethe was a German-Greek. Voltaire was a French-Greek. I do not mean to say that in later times great writers have not appeared who, out of the existing materials of modern languages, have wrought the most valuable results, without any direct knowledge of the classical languages. But I lay it down as a truth which cannot be shaken, that no man ignorant of Greek can read any great English, or German, or French author—for example, Shakespeare or Milton, Pascal or Voltaire, Goethe or even Schiller—with the same pleasure and full appreciation as if he had been once trained to a fair knowledge of the Greek language. To confine our studies to modern tongues, is to cut ourselves off from an acquaintance with the sources of a great part of the richness, the power and the beauty of all that is great in modern literature. I trust I am not, more than Mr. Adams, pleased with literary formalism and tinsel, or the poor imitations of Demosthenes and Cicero which he satirizes. I think, plain, direct, honest English is the highest need of our times in language and literature. The words of St. Paul are applicable here: “I had rather speak five words with my understanding than ten thousand words in a tongue.” Better the plainest, most untaught English than all formal imitations of the highest models. But to follow Homer, to know and be influenced by Homer, is to speak with a directness and simplicity which scarcely any modern writer would dare to observe. To write as Thucydides wrote, to speak as Demosthenes spoke, is to reject ornament, to spurn verbal cunning and contrivances, and to hold the whole mind intent only on the clearest, directest expression of thought. A true revival of the classic spirit, a

true *renaissance*, would give us back some part of the austere beauty, the severe simplicity, and the majestic power which modern literature generally lacks.

And Greek discipline and taste were not confined among the Greeks—in their nature they could not be confined—to letters alone; they displayed themselves not less notably in architecture, painting and sculpture. The only great sculpture which the world possesses to-day, I think it correct to say, is Greek—the product either of ancient Greek hands, or of those of later days who caught their whole spirit and power from studies of Greek art. Michael Angelo was as true a Greek in spirit as Phidias or Ictinus; and his sculptures which one sees now in Italy are simply the works of a great Italian-Greek of the fifteenth century.

When, therefore, Mr. Adams declares that he prefers the German tongue and its literature to the Greek, “whether viewed as a thing of use, as an accomplishment, or as a source of pleasure,” I can only reply that as a matter of fact, the German tongue and its literature, like all the cultivated modern tongues and literatures, is widely and deeply pervaded by the influence of Greek and classical studies. Goethe, its greatest literary name, whom Mr. Adams declares “the equal, at least, of Sophocles,” was as true a Greek as Michael Angelo; and it is Goethe, too, who has said, “I wish all success to those who are for preserving to the literature of Greece and Rome, its predominant place in education.”

Mr. Adams, throughout his address, proclaims his own ignorance of Greek. The weight of his charge against Harvard is that it “compelled him directly and indirectly to devote the best part of his school life to acquiring a

confessedly superficial knowledge of two dead languages." He declares that at Harvard College thirty years ago, "a limp superficiality was all-pervasive"; and as the result, he says: "I have now forgotten the Greek alphabet, and I cannot read all the Greek characters if I open my Homer." I am bound, I suppose, to accept these statements as to Mr. Adams's attainments in Greek, though I find it difficult to understand how one who, as he himself states, "studied Greek with patient fidelity," and who declares that "there are not many modern graduates who can say as I can, that they have, not without enjoyment, read the Iliad through in the original, from its first line to its last," can also say, "I have now forgotten the Greek alphabet."

But if the time given by Mr. Adams to Greek had been given to German, if his study of German had been characterized by a "limp superficiality," and if now he had forgotten the German alphabet and could not read all the German characters if he opened his Goethe, does Mr. Adams think he would have been better prepared for the work of modern life? Mr. Adams's positions here seem strangely and carelessly inconsistent. He declares that he never had more than "a confessedly superficial knowledge" of Greek, and that even that has faded out till he has now forgotten the Greek characters, and from that premise he proceeds to the conclusion, so far as his individual experience goes, that the compulsory study of Greek should be abandoned by our schools and colleges, and some modern language be allowed to take its place, at the option of the student. But if the failure of Greek to prepare him for modern life was due to the "limp superficiality" of the instruction and requirements of the Harvard of his day, does he think a similar method in

German would have had better results? Of course, he does not. Mr. Adams justly anathematizes superficiality in anything as "contemptible as well as dangerous, and apt to invite defeat." It is fair, then, to ask Mr. Adams what right the failure of the Greek of Harvard thirty years ago to accomplish desired results in his case gives him to conclude that Greek rightly taught, or, to use his own words, "Greek really studied, lovingly learned," would not accomplish all that a college "fundamental" ought to accomplish?

Does Mr. Adams think that the mere fact that German or French may be chosen by the student in place of Greek, would change the "limp superficiality" which he charges upon the Harvard of his day, into a "scope and thoroughness" of instruction and attainment, to repeat his own words, "which should set at defiance the science of cramming?" It is surely hard to see why German should be taught with greater thoroughness than Greek in Harvard or other colleges, and unless such is the result, it is hard to see what gain could come in this respect from admitting German to an equality with Greek as a college "fundamental."

But at this point I am glad to express my agreement with Mr. Adams in all he says or can say of the duty of thoroughness, and of the absolute demand for better, more thorough, more inspiring instruction in Greek, as well as in all languages. The real force of Mr. Adams's challenge and arraignment of Greek lies, I think, in the degree of truth which most college graduates will find in his description of the methods and standards of instruction in that language. I have said that I do not believe Mr. Adams's strictures of Harvard are accurate or just in degree. My own observation leads me to think that Greek

is at least taught as well as German in our schools and colleges, but that a great and in some respects a radical change is needed in our methods of instruction in all the languages — a change which may be generally described as from an artificial to a natural method, from a predominating attention to matters of syntax and grammar to an effort to teach a better knowledge of the language as a vehicle of thought and a more adequate appreciation and enjoyment of the literature which it embodies.

When Mr. Adams gives us what he represents as the experiences of the Adams family for four generations, he might be regarded as speaking with authority. But the Adams family belongs to the public, and the lessons to be drawn from the history and experiences of its members are not confined to such as those who are lineal representatives of that family may choose to set forth, but they are such only as the facts of their history establish.

It may be remarked that by recalling the fact that John Adams himself, near the close of his long life, was unqualifiedly convinced of the pre-eminent value of the study of Greek, so that he specially provided, in those closing years, in founding the academy which bears his name, for a "schoolmaster learned in the Greek and Roman languages," as well as to some other very characteristic provisions which he made, intended to secure thoroughness in the Greek and Hebrew languages in that academy; Mr. C. F. Adams, Jr., gives us the most convincing proof possible of the value which John Adams deliberately set upon his own classical training. To be sure, our present Mr. Adams tells us that this was "bowing low before the fetish;" that "instead of taking a step forward, the old man actually took one backward"; and that "this was fetish-wor-

ship, pure and simple." And he then brings forward, as the only evidences of the correctness of such opinions, two passages from the correspondence of John Adams, written respectively in 1813 and 1814, in one of which, at the age of seventy-eight, John Adams tells Thomas Jefferson that he had recently been reading Isocrates and Dionysius Halicarnassensis, and that he found that "if he looked a word to-day, in less than a week he had to look it again," and that "it was to little better purpose than writing letters on a pail of water"; and in the other of which, in his seventy-ninth year, he writes to Jefferson, that thirty years before he read Plato, and learned little or nothing from him.

He then dismisses the great patriot and statesman, with the remark: "As a sufficiently cross-examined witness on the subject of Greek literature, I think John Adams may now quit the stand"!

I do not think this will be likely to lead the world to forget that the life of John Adams was one of incessant labor and immeasurable service for his country, covering a period of considerably more than a half-century of our most eventful history; that he received a classical education at Harvard; that even at the age of seventy-nine he was not obliged to confess that he had forgotten the Greek alphabet; but throughout his laborious and anxious life he never forgot or abandoned his classical studies, and at last gave, as we have seen, the most signal proof of his estimate of their value to himself by founding an Academy in which the study of Greek and Latin was made "fundamental," with Hebrew, "if thought advisable."

The real life-long testimony of John Adams is to the superior value of classical studies. There is no doubt that familiarity with the French language would have been invaluable to John Adams in his diplomatic career, but he

had in its stead that stoutness of spirit and flexibility of mind which enabled him at forty-two to undertake the task of learning French, and to accomplish as a diplomatist at the council-boards of Europe what he himself always regarded as the greatest triumphs of his life.

I know no reason why the education of Harvard is not entitled, on all grounds, to regard John Adams, as he evidently regarded himself, as its debtor for the foundation of that mental equipment which made him as Jefferson describes him in the debates which led to our Declaration of Independence, "our Colossus on the floor. Not graceful, not elegant, not always fluent in his public addresses, he yet came out with a power, both of thought and expression, which moved us from our seats."

Mr. Webster in his oration on Adams and Jefferson says: "They were scholars, ripe and good scholars; widely acquainted with ancient as well as modern literature, and not altogether uninstructed in the deeper sciences. . . . I would hazard the opinion that, if we could ascertain all the causes which gave them eminence and distinction in the midst of the great men with whom they acted, we should find not among the least, their early acquisitions in literature, the resources which it furnished, the promptitude and facility which it communicated, and the wide field it opened for analogy and illustration; giving them thus, on every subject, a larger view and a broader range, as well for discussion as for the government of their own conduct."

I set the testimony of John Adams himself, and the judgment of Daniel Webster as to the sources of his power in public life, against the conclusions which Mr. C. F. Adams, Jr., would have us draw.

Of John Quincy Adams, his grandson says, "I would

for the sake of my argument, give much could I correctly weigh what he owed during his public life to the living languages he had picked up in Europe, against what he owed to the requirements of Harvard College." I think the friends of classical education might safely join in this wish. Very sure I am that the accidents of boyhood, what our author twice calls "the languages which he *picked up* in Europe" had no considerable part in giving to John Quincy Adams that marvellous mental equipment which made him, as his grandson justly thinks, more than the equal of any one whom he ever met in debate. I do not believe such a training was "picked up" from any source or in any sense. I believe it was the result of careful, laborious training in which classical studies did their share. His attainments in the continental languages of Europe, like all our most valuable acquisitions, were the result of thorough, systematic and long-continued studies. They were undoubtedly of the greatest value to him in personal intercourse as a diplomatist in Europe, a period, however, of only fifteen years. For a period of fifteen years, then, in a public career of more than half a century, the modern languages were, in the work of foreign diplomacy, very valuable instruments in the hands of John Quincy Adams. Let all this be conceded ungrudgingly. But in the more than third of a century which lies outside of his residence aboard, he was a Senator of the United States, Professor of Rhetoric and Belles Lettres at Harvard, nominated and confirmed a Judge of the Supreme Court of the United States, eight years Secretary of State, President of the United States, closing the longest, and in many ways the most remarkable public career in our history by seventeen years of service as a member of the National House of Representatives. What were the influ-

ences which most strongly sustained that arduous and prolonged career? Let John Quincy Adams answer for himself. In 1809, at the close of his term of service as Professor of Harvard College, he used these parting words to his classes; — words which for true pathos and eloquence are not easily matched in American oratory — “If at this moment, in which so many circumstances concur to give solemnity to our feelings, I may be permitted to use with you the freedom, as I feel for you the solicitude of a parent, and to express in the form of advice, those ardent wishes for your future happiness, which beat with every pulsation of my heart, I would entreat you to cherish and to cultivate in every stage of your lives that taste for literature and science, which is first sought here as in their favorite abodes. I would urge it upon you, as the most effectual means of extending your respectability and usefulness in the world. I would press it with still more earnestness upon you as an inexhaustible source of enjoyment and of consolation. . . . At no hour of your life will the love of letters ever oppress you as a burden, or fail you as a resource. In the vain and foolish exultation of the heart, which the brighter prospects of life will sometimes excite, the pensive portress of science shall call you back to the sober pleasures of her holy cell. In the mortifications of disappointment her soothing voice shall whisper security and peace. In social converse with the mighty dead of ancient days, you will never smart under the galling sensations of dependence upon the mighty living of the present; and in your struggles with the world, should a crisis ever occur, when even friendship may deem it prudent to desert you; when even your country may seem ready to abandon herself and you; when even priest and Levite shall come and look on you, and pass by on

the other side, seek refuge, my unfailing friends, and be assured you will find it in the friendship of Laelius and Scipio; in the patriotism of Cicero, Demosthenes and Burke."

Some of Mr. Adams's most dogmatic expressions of opinion I find it difficult even to understand, much more to account for, and I must, at least, express my astonishment that Mr. Adams should say of John Quincy Adams, that "as an imitator he was as bad as Chatham. More could not be said. That much he owed to Harvard College and its little Latin and less Greek." And this is said of the most magnificent orator who ever swayed the British Parliament! "As bad as Chatham"! of whom Prof. Goodrich says: "It would be difficult, in the whole range of oratory, to find more perfect models of style and diction for the study and imitation of the young orator. . . . Nothing can be more easy, varied and natural than the style of his speeches. There is no mannerism about them. They have this infallible mark of genius, they make every one feel, that if placed in like circumstances, he would have said exactly the same things in the same manner."* But I trust it is superfluous to defend or praise the style of Lord Chatham.

Perhaps, however, the most remarkable passage in Mr. Adams's address is this: "It is asserted that the compulsory study of Greek has not been discontinued in foreign colleges; and yet, as we all know, the students of those colleges have an ever-increasing mastery of the living tongues. I do not propose to enter this branch of the discussion. I do not profess to be informed as to what the universities of other lands have done. . . . I hold it sufficient for my purpose to reply that we have to deal with America, and not with Germany, or France, or Great Britain."

* Goodrich's *British Eloquence*, p. 75.

This is coming dangerously near, I think, to the position of our American politician to whom Mr. Adams alludes, who, in recent financial discussions, in answer to arguments drawn from the experience of European nations, declared "he did not care for 'abroad'; he was legislating for America."

But I do care for "abroad," and so, I suppose, do all reasonable men. It happens that the most thorough and direct test of which we have any knowledge, of the comparative value of the classical and non-classical training in preparatory schools, has lately been made in Prussia.

In Prussia there exist, side by side, two classes of schools, called *Gymnasias* and *Realschulen*. The former prescribe a classical course of study; the latter dispense wholly with Greek, reduce the time given to Latin nearly one-half, introduce English, give more attention to German, double the time devoted to French, more than double that given to physical and natural sciences, and increase by one-half the time given to mathematics. It will thus be seen that the Prussian *Realschulen* do what Mr. Adams would have Harvard do, or more precisely, they do what Mr. Adams would have Harvard permit its students to do, at their option — omit Greek entirely, reduce Latin to mere rudimentary acquirements, and devote the time thus gained to French and German, or other modern languages.

In 1870, at the instance of not a few who looked as Mr. Adams does upon Greek and Latin studies, the Prussian Minister of Public Instruction, by royal Decree, conferred on Prussian subjects who had completed the full course of instruction in the *Realschulen* of the first rank, the right to enter any Prussian university for the purpose of studying mathematics, the physical and natural sciences, or the modern languages — a privilege heretofore only enjoyed by the graduates of the Prussian *Gymnasias*.

In 1880, when this experiment had been in operation over eight years, the faculty of the University of Berlin presented an opinion or report to the Minister of Public Instruction upon the results of the admission of graduates of Realschulen to the University. It would be difficult, I think, to have devised a more direct or more impartial test of the results in mental training of the classical and non-classical systems of preparatory education. It will be observed that the Realschüler were admitted to the University courses in mathematics, physical and natural sciences, and the modern languages; in other words, to the higher courses of study, in the very branches to which the time of the Realschulen had been chiefly given. Every advantage which could come, therefore, from a special training, so-called, for the higher courses of study, lay with the Realschüler members of the University in the courses to which they are admitted.

The faculty of the University of Berlin at the time of the report to which I now refer, consisted of thirty-six members, including such well-known names as Curtius, Zeller, Mommsen and Hofmann. Summarily stated, the professors and instructors in mathematics, in astronomy, in chemistry, and in zoölogy bear uniform testimony to the superior capacity and success of the graduates of the Gymnasia in the pursuit of those branches of University study. But what is more significant for our present purposes, the instructors in the modern languages, particularly Professor Zupitza, instructor in the English language and literature, and Professor Müllenhoff, instructor in the German language and literature, report a distinct superiority of the graduates of Gymnasia over the Realschüler in the study of these languages. Professor Müllenhoff says:

“Judging from my experience, it is simply impossible

for one who has been prepared in the Realschule to acquire a satisfactory scientific education. No man acquires it by means of the modern languages alone, nor without a solid foundation in the training of the Gymnasium."

Professor Hofmann, whose greatest renown has been won in the physical sciences, remarks that, "Students from the Realschulen, in consequence of their being conversant with a greater number of facts, outrank as a rule, those from the Gymnasia during the experimental exercises of the first semester, but that relation is soon reversed, and given equal abilities, the latter almost invariably carry off the honors in the end, being mentally better trained and having acquired in a higher degree the ability to understand and solve scientific problems."

Professor Hofmann, likewise, in his inaugural address on assuming the Rectorship of the University of Berlin in October, 1880, declares that "all efforts to find a substitute for the classical languages, whether in mathematics, in the modern languages, or in the natural sciences, have been hitherto unsuccessful, — that after long and vain search, we must always come back finally to the result of centuries of experience, that the surest instrument that can be used in training the mind of youth is given us in the study of the language, the literature and the works of art of classical antiquity."

"Idealty in academic study," he observes, "unselfish devotion to science for its own sake, and that unshackled activity of thought which is at once the condition and consequence of such devotion, retire more and more into the background as the classical groundwork of our mental life found in the Gymnasium is withdrawn from the pre-University course." And he adds: "I have never heard a student from the Gymnasium express a wish that he might

have received his training in a *Realschule*; how often, on the other hand, have I met with young men prepared in the *Realschule*, who grievously regretted that they had never had part in the training of the *Gymnasium*”!

It should here be added, that in reply to an official request in 1870, for opinions on the admission of graduates of *Realschulen* to the Universities, or to certain courses therein, the faculties of all the Prussian Universities besides that of Berlin, eight in number, gave formal opinions, most of which were in harmony with those of the Berlin faculties.

Efforts have been made, naturally, to break the force of this remarkable testimony, and one writer has ventured to assert, first, that the Berlin report “has nothing to do with this question”; and second, that, “upon investigation it turns out to be squarely on the other side of the point in dispute”!*

That some of the conditions of this experiment were, of necessity, somewhat more favorable to the *Gymnasium* than the *Realschule*, owing chiefly to the fact that the former schools are older, better organized, and better equipped, and probably draw a larger ratio of their pupils from the better-educated and more intelligent classes of the people, may be conceded. Something, too, may possibly be allowed for the predilections, not to say prejudices, of the University professors and instructors in favor of the schools in which they themselves were trained — though of such partiality one surely sees small trace in Mr. Adams or his present supporters, — but when all reasonable concessions of whatever sort have been made, it still remains that here, for a period of full eight years, the University has been opened to students prepared very nearly, if not

* Popular Science Monthly, January, 1884.

wholly, on the plan, or by the studies advocated by Mr. Adams, for the pursuit of those branches with which all their preparatory studies are most closely connected; and that the almost unanimous testimony of those who have had charge of the experiment is that the graduates of schools where Greek is entirely and Latin nearly omitted, and the modern languages substituted,—in other words, where the course is non-classical or “modern,”—are less successful in the pursuit of the studies for which they have had special preparatory training than are the graduates of schools which retain and enforce the undiminished study of Greek and Latin—in other words, a classical course.

If this is not a conclusive test of the opposing theories which we are discussing, I think it may justly be described as the most direct and most nearly conclusive experience which has yet been secured, and probably as conclusive as any likely to be secured so long as the present question remains within the range of discussion. To equalize absolutely all the conditions of such a trial would require us either to reverse the past, or to wait for a long period in the future before concluding which plan of study to adopt, whereas the opponents of a classical course insist that we shall take our decision at once, with such lights as we have—among which, I repeat, I see none clearer or more trustworthy than this Prussian experiment.

I certainly do not think it will do for Mr. Adams to say here, as he does, in answer to arguments derived from the experiences of foreign Universities, that “the educational and social conditions are not the same here as in those countries”; that “our home life is different; our schools are different; wealth is otherwise distributed.” What has all this to do with the effect of a given training upon the mental powers and capacities of the youth of Prussia or

America? Does Mr. Adams think the result of classical training may be good in the case of Prussian youths and bad in the case of American? Indeed, it is precisely because he thinks the present German language and life and thought are so much nearer to ours that he would place the language and literature of that country on an equality with Greek, and yet he says in the same breath in which he extols the German language and literature, "I do not profess to be informed as to what the universities of other lands have done"!

I have hitherto spoken exclusively of Greek, because it is there that Mr. Adams makes his chief attack. "Latin," he says, "I will not stop to contend over. That is a small matter. . . . It has its modern uses. Not only is it directly the mother tongue of all south-western Europe, but it has by common consent been adopted in scientific nomenclature. . . . With a knowledge of the rudiments of Latin as a requirement for admission to college, I am not here to quarrel."

The unquestionable fact here is that as the study of Natural and Moral Philosophy, as well as the theory and practice of all the fine arts, began with the Greeks; the Latin language borrowed from the Greek nearly all the terms and words which constituted the nomenclature of those studies. And the same influence and results pervade all the modern languages of Europe.

But not only is this true of studies — sciences and arts — which originated with the Greeks, but the sciences which have had almost their entire growth in modern times are equally linked with the Greek language. This is especially true of the nomenclature of botany and chemistry. Linnaeus and Lavoisier had direct and almost ex-

clusive recourse to the Greek for the nomenclature of the sciences with which their names are associated. And to-day, in all the advances of modern science, in those practical inventions which in the last thirty years have so greatly affected the conditions of human society, the same recurrence to the Greek language for the appropriate terminology has taken place.

Another leading argument of Mr. Adams for putting the modern languages on an equality with the ancient as "fundamentals" is that both cannot be learned. Greek and Latin, he thinks, for want of time, are incompatible with French and German. "My children," he declares, "cannot both be fitted for college and taught the modern languages."

I regard this position as wholly incorrect. I know of no reason why both French and German and Greek and Latin may not be acquired by the youth of this country. Without doubt the ready and idiomatic use, for conversation, of French and German must, I suppose in all cases, come from a residence in the countries where those languages are commonly spoken, but a mastery for all the purposes of the study and reading of the literature of the French and German languages, as well as the quick acquisition of facility of speech, whenever the opportunity or need comes, can be obtained in almost any community in this country. Latin and Greek are not usually begun, and I think should not be begun, before the age of fourteen or fifteen. There is no reason of which I am aware why French and German may not be constantly studied between the ages of eight and fourteen or fifteen; that is, for a term of six or seven years. I think the facilities for such a course are to-day quite as abundant as those for the study of Latin and Greek. I mean here facilities wholly

outside of special or private instruction. Except in conversational ease and mastery of French or German, the American boy can to-day, as a rule, acquire the same command of those languages that John Quincy Adams and Charles Francis Adams acquired in their boyhood in Europe. He can become proficient in the reading and writing of those languages between the ages of eight and fifteen, before he is called on to begin his Latin and Greek—the period of life when the study of French or German can be pursued to best advantage.

After graduation the student will have, under this plan, what Mr. Adams calls “the tools of his trade,” “the avenues to modern life and thought”; and at the same time he will have whatever classical studies can give him. Certainly I have never discovered that boys who study French and German are more faithful in their work than those who study Latin and Greek, or that the teachers of the former are in any respect superior to those of the latter.

It has been my task here to defend the position of Greek as an invariable part of our training, as a means which never can be omitted in the most useful and practical preparation for the work of life—modern life—as Mr. Adams describes it, “this active, bustling, hard-hitting, many-tongued world, caring nothing for authority, and little for the past; but full of its living thought and living issues.” But I have seen and felt the high utility in life of a thorough knowledge of the two great continental tongues of Europe. The literatures of France and Germany have a value which can be hardly overestimated. It is true, I could never say as Mr. Adams does, that in richness and beauty, I thought the French literature equalled the Latin. I certainly never could prefer Montaigne to

Cicero, and I should be forced to believe that a different estimate must be the result of some degree of ignorance of Latin. In all the qualities which make up the value of Greek for our educational uses, I feel bound to say I place Latin unquestionably next. As a language, merely, as a study in the art of expression, it can be placed second only to Greek, while as a literature, a record of expressed thought, I know no names in French or German literature which in a just estimate I think are to be put on the level with Cicero, Tacitus, Horace and Virgil. But I do feel that the modern languages are apt to be undervalued, and I also feel that a larger place is due to these studies in our academies and colleges, and that more space can be allowed them without injury to the classical course.

Other considerations and arguments of equal weight and value must be omitted here; but I cannot forbear to say again, that it is with special regard to the characteristics of modern life — the life which now surrounds us, — the graphic pictures of which are certainly one of the most striking and valuable features of Mr. Adams's address; it is in reference to that life with which we are now associated, that I should most earnestly oppose the proposition which Mr. Adams presents; for I take issue with the idea which is suggested by him, when, referring to the function and work of the college, he says: "When one is given work to do, it is well to prepare one's self for that specific work." I say, no college student has any "specific work" given him, in this sense, to "prepare for." No college student knows or can know to what work life will call or direct him. Mr. Adams's account of his own career furnishes a good example of this fact. This is the period when, to recur to Mr. Adams's strong phrase, "the best thing we can do is to let our minds soak and tan in the

vats of literature." If it be true, as I think it is, of other periods of our lives, that

"The world is too much with us ; late and soon
Getting and spending, *we lay waste our powers,*"

it is important, beyond estimate, that the period of student life should be guarded from the premature intrusion of the cares and preoccupations which soon enough will fix the nature and limit of our activities, if they do not narrow the outlook and darken the pathway of life.

Therefore, there is in my judgment no study so valuable, so exactly adapted, as a preparation for the work to be done in public or private life, here in America to-day, as the study of the Greek language and literature ; and I have the conviction, that this study is, and will be, whether it remains a part of our prescribed courses or not, the real basis and test of culture, of that mental training and equipment which distinguishes the educated from the uneducated or partly educated, as surely as gold is and will be, whether statutes ordain it or not, in the world's real measure of pecuniary value. No bustle of business nor din of progress, no clamor of politics nor pride of science, I have perfect faith, will ever for long overbear the spirit in man to which poetry, oratory, philosophy and literature answer ; and so, finally, it must result that this study now described in a few high places, as a "fetish," will be more ardently pursued, more wisely taught, more intelligently valued, by all those, whether in academical or practical life, who believe that the highest secular guaranty of the strength and permanence of our civilization is the diffusion of sound and thorough liberal education.

XII.

INDUSTRIAL EDUCATION.

BY HON. J. W. PATTERSON, N. H.

We say of the young man when he graduates from school or college, that he has finished his education. If this were literally true, the young man would be dead, and, if left unburied, would be an unabated nuisance. The fraction of the school is to awaken and direct the mental faculties into right action, so that ever after, they may improve under the object teaching of practical life. Graduation is the commencement of a new development. Education is the ceaseless building up of personality by the intellectual digestion of objective and subjective themes of thought, and the work of the school is to initiate and guide the process till thinking and growth become a fixed habit of our being.

We can assign no conventional limits to the improvement of our capacities, if properly cultivated, and hence the sweep of our power and the sphere of our influence "are widened by the processes of the sun."

The mind grows as the body does from within outward by nutrition, and, while there is an intrinsic force in each mind which assimilates all mind-food into the quality of its own nature, and so preserves the essential differences of personal character, yet the future man is determined in an important sense, by what the mind feeds upon. It is as easy to change the tone, texture, and strength of the

mental and moral faculties in youth by a change of diet, as of the body. Each man builds himself. Our eternity is bosomed in the years of pupilage.

"The spirits
Of great events stride on before the events,
And in to-day already walks to-morrow."

In this light it will be seen that the schools of a people are a determinate factor in moulding national character and destiny, for nations are but aggregates of individuals. Our work as teachers becomes fundamental and takes its place among the primal forces of statecraft and civilization. Its influence should be formative and causal, not resultant; should give, rather than take character from the public life of the time.

But there must be a limit to this law. The schools may stagnate in some eddy of the dead past and arrest the progress of mankind. The philosophy of the great Stagirite shaped the scholastic policy of the world quite too long for the welfare of nations, and it was well that the spell of his power was broken by the shock of the reformation. The theory and practice of the schools in all great epochs, will be brought into harmony with the social and political organism of the state. Perhaps for their own influence and the peace of society, it is best they should be. It will be the work of the great thinkers who are prophetic of the future, to cast into them the leaven of a higher life and so keep in motion that resistless under-flow which draws after it the tide of human progress through all the ages.

The theory of the world in respect to the ends of education has swung to the opposite pole within the historic period. Ancient philosophy turned its contemplation from the realm of the senses exclusively to the region of

impalpable ideas. Seneca affirmed that it was the office of science to form the soul, not to use the hands. Plato and Aristotle would not debase pure science or soil the mind in its pursuit by bringing it down to do the work of a slave. It was an abuse of elemental forces to harness them to the car of human necessity and so lighten the drudgery of toil. In the whole history of Greece, no mill was run by water, and none in Rome till the Christian era. The deductions of the pure reason were things too lofty and divine to be associated with the production of food or the gains of trade. Poetry and eloquence, architecture and statuary, and kindred arts were the objects in which the conceptions of the Greek scholar found expression. He sought intellectual culture for its own sake and reached a force and finish of mental faculty never surpassed.

The Roman youth studied the principles and art of war and the civil law, and became a military chieftain or statesman. He ruled and legislated for the world, for the nation demanded and the schools fitted him for such a career.

This contempt of the ancients for the utilities, was a necessary deduction from their theory of the natural inequality and divinely appointed conditions of the different orders of society. If the gods had foredestined a man to servitude, it was unreasonable to enlighten his mind, or alleviate his appointed task, by the intervention of science. It would only engender a factious discontent and disturb the settled order of the state.

But a higher philosophy than that of Socrates, taught the equality of men, and from that divine truth, have sprung the social activity and political institutions of our modern life. As this Christian dogma spread downward

through the masses, the right of all to be uplifted by the knowledge and discipline hitherto enjoyed by the few came to be recognized, and slowly old theories dissolved, old systems crumbled, and the faith of a broader creed of humanity supplanted the ancient exclusivism. Schools multiplied, the circle of intelligence widened, and at length whole peoples entered into the struggle for social and industrial equality. The final outcome is the popular power, enterprise, and thrift of our own time.

The facilities of distribution and the marvellous productive power which modern discoveries and inventions have given to nations, by opening the resources and markets of the world to the skill of intelligent labor, have imparted a compass and lucrativeness to business inconceivable under any former conditions of life. No extremes of climate, no national policy of isolation, no remoteness of locality, no mountain barriers or interflowing seas, can arrest the resistless activity of this spirit of the age, which, with creative energy, is brooding over sea and land and lifting into forms of value the unutilized resources of nature.

In this intense and universal industrial rivalry, there are conditions essential to national success. There must be the genius of invention born of a subtle and clear intelligence; the acquired skill which can put into convenient and pleasing material forms, the conceptions of the mind; the masses must be thoroughly informed in respect to the natural forces and mechanical agencies employed in production; must understand the economic policy and laws of exchange established by experience; must possess the intellectual power to originate and combine new ideas and to organize comprehensive and complex schemes of business. These and such as these, are the elements of success in the

competitions of our day. To outstrip others, we must have the foremost intellectual faculty, the cunningest manual facility and a temperament of exhaustless vitality. There have been races which furnished splendid exemplifications of some one of these, standing out in solitary grandeur, but the resistless march of their combined power, has seldom been witnessed. The Greek mind excelled in the realm of thought, the Roman in that of action, but both lacked the dexterous handicraft of the stagnant East. These are the personal qualities which have demonstrated their value in the eager industrial activity which characterizes our time. Machinery, directed by educated labor is pouring forth from factory and farm, unmeasured products to meet the insatiable demands of commerce, and new fields of supply and new markets of consumption are daily added to the statistics of trade, and we are in the forefront of this Olympiad of business.

There is a popular impression, and, in some quarters, a positive conviction, that our schools in all their grades, as at present organized, fail to impart the qualifications necessary to victory in this contest. Our systems of instruction have come down from the period of the humanists, and are strong on the intellectual side but weak on the practical. Sciences are treated as abstractions which can only be taught, to any useful purpose, in the laboratory and field. Our children lumber the memory with what can only be known through the understanding, and so fail in an encounter with the students of the work-shop. They can analyze a syllogism and demonstrate a theorem, but cannot comprehend the simplest machine or measure a pile of boards. Experiment is artificial experience, and must be used in all our acquisitions if we would be able to apply them to practical uses. The old methods in

chemistry, physics and languages should be relegated to the memory of the antiquary, as things out of date. Knowledge should enter the mind, as it will have to proceed from the mind, through the senses and in concrete forms. It will then be practical and discharge its highest function in the discipline of the intellect.

To supplement the defects of our higher institutions, and to impart to the rising generation the elements of success, special schools of technical and industrial education have been established in a few of our centers of wealth and population. They are doing a good, and some of them a great work, in pointing the way to improved methods of teaching and by sending forth into every enterprise, men of large directive capacity. It would be well if other institutions of similar character could be established in sufficient numbers to meet the demands of society. But in the management of these schools, while they develop all the skill in the manipulation of mechanical tools, all the knowledge in respect to methods of work, and the nature and uses of materials compatible with a curriculum of study, while they exalt the dignity and foster a taste for manual labor, it should not be forgotten, that brain power is the most practical of all power, as it is both creative and executive and touches every human interest. It is this which conquers in the rivalries of business and of empire. Developed intellect is many-sided, and if it cannot mould, it adapts itself to the public will and is master of the world. It is only when the thought embodied in our multifarious wares is more valuable or beautiful than the thought of other nations, that we are successful in the rivalries of trade. There may be as much skill and as much labor in a Chinese trinket as in an American engine, but its inutility gives it but a narrow market

and a scanty income. The loom of thought is more practical and more profitable than the loom of any material fabric. It will not pay to cultivate the hand at the expense of the brain.

There are certain oracular expressions coming to be quite common in the pedagogic philosophy of our day, which are too deep for my apprehension. We are exhorted to educate the hand and the eye, and the mind through these, as though each was gifted with a separate intelligence. I know of no way to give facility and accuracy to the organs of the body except through the mind. We educate the will by constant repetition to act with rapidity and exactness through the organs of sense, but the will is a faculty of the mind. We may as well talk of educating a sword, as the hand, for in each case the language would be figurative and not exact. We are also urged to discipline our intellectual faculties through the physical organs, and properly so, if the language is correctly understood. But no action of the hand or eye or other member, has any tendency to educate, till the mind has formed the habit of meditating upon the perceptions that reach it through the senses. Otherwise the ballet girl, the seamstress and the blacksmith ought to be the ablest and best informed people in the community. It is intellectual action that brings personal power, and our chief work as teachers is with the mind.

If these endowed institutions, so justly the pride and boast of our cities, shall ever forego the broad and generous culture through the practical methods, which they now employ, and degenerate into mere work-shops and trade-factories, they will cease to be educational agencies and can claim no right of existence.

But the difficult problem to be solved in this connec-

tion, is how to bring industrial education to bear upon the popular mind through the public schools. The subject has been voluminously and eloquently discussed, but little has been said that is definite and practical. Two plans have been suggested in connection with *secondary* instruction. *First*; That the manual training school be made a separate institution. *Second*; That the entire secondary system of instruction should be so changed, that both kinds of training, the classical and the industrial, could be carried on in parallel lines, in the same school. There seems to be no serious objection to either plan, except that both are limited and partial. They make no provision for the ungraded rural districts, nor for the children of the work-people who never enter the secondary schools, and they are the vast majority of the whole number.

It would be urged, doubtless, that this would be class legislation and therefore in violation of the spirit of our laws. This is the familiar objection to the accepted courses in most of our High schools. Tested by old standards, the reasoning is unsound and fallacious.

The duty of providing for the education of all the children of the state, at public expense, arises from the fact that general intelligence is essential to the safety of popular governments and the welfare of society. That the possibility and security of free institutions have their source in the intellectual and moral discipline of the people; that vice and poverty are abated by knowledge; and that it is cheaper to foster virtue than to repress crime, are truths too generally accepted to justify debate, even in an age that questions the foundations of social order. The right of self-defence and self-development which belongs to individuals, holds when they organize and act

as communities; and hence the power to legislate and levy taxes for public schools. All will enjoy, directly or indirectly, the advantages of a general diffusion of knowledge from this source, but absolute equality in the distribution of educational privileges, is impossible. But inequality is not limited to the institution of a system of instruction. It is unavoidable in all public works. The general welfare determines the rule of action in such matters. This principle is recognized in our organic laws and framed into the statutes of every state. Hitherto no sensible man has questioned its application to our primary public education, but there are not a few to-day, who deny the right to tax the people for the support of any but elementary teaching. Special and professional schools they would cut from the system, and banish the classics and the higher ranges of English to private instruction.

Such views, it seems to me, are the offspring of a narrow mercenary spirit, schooled in the destructive philosophy of a communistic democracy, rather than the lofty and comprehensive teaching of the wise builders of the republic, "The instruction of the people," said the elder Adams, "in every kind of knowledge that can be of use to them in the practice of their moral duties as men, citizens, and Christians, and of their political and civil duties as members of society and freemen, ought to be the care of the public and all who have any share in the conduct of its affairs." Similar views were entertained by Madison and frequently expressed in the most positive terms. Jefferson drew a bill for the establishment of a system of public instruction in Virginia, which provided for a college in each of the ten districts of the state. The legislature of Massachusetts has bestowed public

benefactions upon her seats of classical and professional learning with a munificent hand. My own state has given aid to the medical and academic departments of Dartmouth, and a record equally honorable, in the same direction, has characterized the legislation of other states. The constitutional authority which authorized a land grant to the Boston school of Technology and fifty thousand dollars to the school of Industrial Science in Worcester, has not been exhausted by exercise. Such gifts rest upon the right to provide for the public welfare, and are an essential part of the organic law of every state, and of the national government. This principle underlies all appropriations for internal improvements, and justifies the establishment and maintenance of military and naval schools and of agricultural and mechanical colleges. The founding and aid of industrial schools, therefore, is, to my apprehension, not a question of political power, but of expediency. We have to consider only the general utility of industrial education and our financial ability to provide for it.

I cannot see that the public welfare would justify a tax for the support of schools of law, medicine, theology and instruction in industrial trades, for these personal and social interests will necessarily maintain without such aid. Institutions of this character stand upon a different footing from military and industrial schools, which motives of profit would never establish. There are cases where government may aid private institutions, as it would grant a subsidy or remit taxes to a struggling enterprise in which the public will be benefited. But it is not in general, in accordance with the genius of our institutions, to assume the control and responsibility of matters which may better be left to private emulation. The interests of

an intelligent community will manage such things more successfully and economically than government. We have no lack of good men in all the professions and industries, but doubtless the standard of excellence will rise with the advance of public intelligence, and, would we bring the highest gifts of inventive genius and executive power to bear upon our national industries, our schools must furnish a more accurate and extended knowledge of the principles and methods which prevail in the ruling competitions of the age.

The great body of the working population of the country never pass beyond the lower grades of the public school. How we shall reach them with the new education is a practical question of great difficulty. It is easy to theorize and lay out schemes which might and ought to be put into operation in the cities and larger villages, but it is quite another matter to digest a working plan which will be practicable for all the schools of a state. One thing is certain, we can only keep pace with public opinion in our reforms. An attempt to go faster will inaugurate a war in which we may be certain of defeat. Our first work, then, is to make sure of the convictions of the tax-payers. An essential condition of success in the movement is a definite understanding among those who are to inaugurate the change, as to what it is wise and proper to attempt.

It is certain that industrial efficiency and success were not the only nor the highest ends for which the fathers established, and we maintain, our common schools.

It is not the function of the public school to equip its pupils with a trade or profession, but to awaken intellectual activity and direct it in paths which will lead to the highest material prosperity, political strength, intellectual

power and exaltation of character. But these ends are in harmony, and may all be reached more quickly and effectually by a reformed than by the old system of pedagogy.

We would teach ideas in the concrete and not in the abstract; would substitute things through the senses for words through the memory; would give definiteness of conception, skill to the hand, and quickness to the eye by requiring free-hand and mechanical drawing through all the grades; we would improve the judgment in respect to forms, colors and distances, by constant exercise in such matters; we would introduce into the school-room some of the cheaper implements of labor, would use specimens and apparatus, and teach all things by inductive methods, till the mind could grasp and handle abstract truth.

But all these things should be subordinated to the acquisition of knowledge and the discipline of mind. I take issue with him who would turn the school-room into a work-shop. The sound of hammers, files, saws and planes, and the racket and creaking of machinery, are incongruous and out of place where mental work is to be done. And where but in the same apartment could these mutually destructive processes be carried forward, if at all? More than a majority of the school districts in New England are unable to build an industrial adjunct to their school-houses, and a majority of the rest would not if they could. The average attendance upon the schools of my state, is about seventeen. One fourth of all the schools have an average attendance of twelve or less than twelve scholars, and one ninth number six or less. To ask a town which has but one hundred scholars and ten schools, averaging ten scholars each, to engraft

a system of industrial education upon its schools, in any but the simplest and least expensive way, is absurd, and to discuss it, a waste of time, which might better be devoted to some practical improvement of possible attainment. Separate industrial schools in the large towns and cities, if conducted as schools, and not as trade-factories, are noble and hopeful signs of the times, but there must be a complete revolution of public opinion, before our farming towns will consent to tax their poverty for such an innovation, and it would be of doubtful utility if they should.

Arts and trades may be used as adjuncts, but can never be made a substitute for general training. The industries are so numerous as to render it impossible to cover the whole field of technical training in any industrial school, and to do less than that, would seem to be unjust to those left out. Who is to settle the controversy which would arise and bring peace out of injustice in a public institution? No man could advocate the organization of a public school to meet the special wants of not more than one in fifty of its pupils. To attach a technical adjunct to a district school for the special training of blacksmiths and carpenters, where not more than one in a generation of all the scholars would follow either of those honorable occupations, would be an extravagance which no public interest could justify. Invention stalks with such unmeasured tread and obtrudes so noiselessly into secluded retreats in our day, that the most cunning craftsman is liable to be chased from his trade by some piratical machine and left stranded upon shoals of poverty. Some intellectual resources and general mental power are the best things in the world at such a time, to get one afloat again. With these, he may

out-strip his fellows or himself invent a machine which will increase his productive power twenty-fold. Our modern world has sprung from brains disciplined in the old schools. It is brains so schooled which form and execute our colossal schemes of business ; which organize governments and administer laws and institutions.

It has been said that "our present education is defective because it exalts the expression of thought by language and ignores its expression by the skilled hand." This may be true of the higher institutions, but facts do not seem to sustain the charge, if leveled at the public schools. Do not our industrial people work better than they talk or write? Do they not rival the world with their fabrics and utilities, that have sprung from the genius of labor? Have they not spoken to us through countless inventions and filled the land with the music of machinery? But how few have added anything to the philosophy or literature of the republic?

It has also been charged that our schools pervert the taste and unfit the young for business pursuits by imparting false and foolish ideas in respect to the relative dignity of professional and manual labor. I think the accusation unjust. It was never true of any but the higher institutions, and the spirit of caste is fast disappearing even in them. We attribute to the schools what belongs to society. It may be true that educated men shrink from association with the ignorant and vulgar into whose hands machinery has thrown the drudgery of the world, but not from work itself.

Agriculture, manufactures and commerce are more and more drawing educated men into their pursuit. The revelations of science are throwing a new and peculiar fascination about the physical industries of our time. So

long as work opens the avenues to wealth and wealth lifts to social distinction and political power, we need not fear for the estate of labor. It will take care of itself. The danger rather is that it may banish brains and character to subordinate stations and usurp the throne it cannot fill.

We must not forget that the old education is the soil in which the seeds of progress have quickened and ripened for more than ten Christian centuries, and we shall not hasten the reformation so devoutly to be wished, by underrating or misrepresenting its influence. It must be borne in mind too, by those who would push industrial education beyond what I have indicated, that the great majority of our public schools are to-day taught by ladies. In New Hampshire they are to the male teachers as seven to one, and it is not discreditable to them, to say that they are not familiar with house-building or horse-shoeing, and know less of farming than the boys and girls whom they teach. If a knowledge of these arts were made a test of their fitness to teach, their only hope of a certificate, would be based upon the inability of school committees to examine them in the prescribed requisitions. The subtleties and mysteries of these manly employments were not down in the courses of study in which our lady teachers fitted for their vocations. When the millenium of woman's rights shall be reached, a knowledge of lathes and trip-hammers will doubtless be numbered among the useful accomplishments with which they will be decorated, but to-day, they know more of the science than the art of agriculture, mechanics and manufactures. It would add fatally to the cost of the schools if extra male teachers had to be secured to carry forward this supplementary work.

Dr. Harris estimates the average schooling of the people of this country to be thirty months, that is five months a year for six years. Let us be more generous and allow them five months a year for ten years. That will give the children four years and two months of schooling, and set them at their work at fifteen. Five months each year the children devote to the cultivation of their perceptive and reflective faculties, and the remaining seven to developing their physical powers, or to becoming familiar with the instruments and practice of their future industries. This allows only four years of interrupted work in the inappreciative period of youth, for gathering the knowledge and directive power essential to the success of any and every enterprise of life, and six years, under the tuition of parents, to acquire facility and aptness in the work of the hands. At fifteen the child, if he has the means, may go "to town" to perfect his manual education in the industrial college, or lacking that, will graduate into the practical school of his chosen industry, to acquire from a lifetime of object lessons, a manual dexterity limited only by the dwarfed and wayward faculties of a mind untutored.

For myself, I desire to see inaugurated a more thorough and practical system of teaching, a system which shall connect the life of the school with the life of the world, but I deprecate the shallow charlatanry that would fill the quiet retreats of learning with the clank and clatter of machinery and transform a conclave of scholars into a caravansary of pleasure.

We must not deceive ourselves with popular illusions. It is the fruitful, reflective brain that conquers, not only in the cabinet and the field, but in the factory and the marts of trade. Trained hands, however cunning, are guided by thought, not instinct. It was the cultured

genius of Flaxman, fixing the fleeting spirit of beauty in the plastic clay, that brought wealth and an imperishable name to the Wedgwoods. It was years of patient meditation that gave to the world the steam-engine and the telegraph and revolutionized its industries.

The children of the republic should be trained to the expression of ideas in both words and things, but they must learn to think, or they will have no ideas of their own to express, and will live and die pliant cat's-paws to the purposes of others. Good teachers make the senses the avenues to reflection, but most of the doing leads to no thinking. The effort to apprehend thought on the printed page, is itself a process of thinking, and the power and habit grow by exercise. The school that ignores or makes little of this direct mental work, will lose an element of success which rests upon an obvious law of intellectual development. The experience of centuries demonstrates that we reap in kind in the intellectual and spiritual life, as in the physical. Wheat begets wheat, so thought, thought; a great poet scatters the seeds of centuries of song. The utterances of Scripture are the inspiration of the church in all ages, and the philosophy of Bacon is voiced in the experimenting, money-making and revolutionizing of the nineteenth century. The ideas of the masters of the world, are, —

"A motion toiling in the gloom
The spirit of the years to come
Yearning to mix itself with life."

Our children must sit at the feet of the great teachers whose wealth of thought, sentiment and piety is our best inheritance, if they are to be vitalized by the spirit and power of the imperishable prophets of civilization. I do not mean that they should be confined to a scholastic tread-

mill for the learning of words, though these are the symbols of ideas. I do not mean simply learning what others thought in either a dead or living language, though this may be very stimulating and useful. But I do mean learning to think for themselves through the inspiration of others, so that at last, they may be able to add something in words or things, to the real and lasting possessions of the world.

I am not insensible to the progress, power and grandeur of our modern civilization. It is as marvellous in its moral advance and intellectual triumphs as in its material achievements, but I know of no way by which the best things of past generations can be incorporated into the strength and temper of succeeding generations, except through the divinely appointed processes of mental action, and I desire to guard against banishing these from the schools, in our commendable zeal to bring the senses into a more facile obedience to the will.

Our divisions and subdivisions constantly narrow the ruts of labor, but bring no leisure for discursive study. The horizon contracts upon the mental and the moral vision and the monotony of life within its restricted confines tends to obliterate intelligence, ability, patriotism and pride of character. Restrict the sources of intellectual and spiritual life to a people so tethered, and they will soon become slavish and soulless and unfit for the grand destinies of a self-ruling people. Shut from them the revelations of science, the teachings of history, the inspirations of the poets, and the subtile afflatus of abstract truth, from which so many flee back affrighted, and their souls would shrivel to the dimensions of a race of slaves. There are painters in Italy of surpassing skill, who spend their lives in copying the old masters. Their minds are

a stagnant bog. The genius of art has never lifted them into the realm of conception where float infinite possibilities waiting for the touch of another Murillo or Da Vinci. These men handle the brush with deftness, but have nothing of the genius of invention, because they have been satisfied to practice their profession and have not studied to reach its inner life. So it is in every sphere of life. "Genius is patience," said Buffon. Certainly the genius of success in individual and national endeavor is patience to analyze and gather up into ourselves, the vital forces of the past. Handicraft is a convenient adjunct, but it is braincraft, schooled to fuse all its acquisitions in the crucible of thought, and to pour them in one burning tide upon the field of action, that wins the trophies of success.

The omnipotence of wealth is certainly a sign of political power, but it does not mark the highest stage of a nation's progress. The literature and art of Greece, the civil law of Rome and the inviolability of personal rights under British power, have a historic worth which all the treasures gathered by these mighty empires could not purchase.

And is success in the race for gain the highest prize for which national ambition can *here* contend? Are there not elements of the security and greatness of nations more essential and worthier of our care and support? As citizens of the republic of letters, shall we not put forward something wiser and more enduring than financial prosperity, as the "be all and end all" of our courses of study? Freedom drifts to communism and business to gambling, sedition and nihilism lurk in secret associations, the rights of property, the foundations of authority, and the sacredness of life are denied, and have we nothing to do with the philosophy of social order and

the science of government? The paramount question is, not what is wanted but what is needed in this age and country for the conservation of liberty and the development of a purer and profounder civilization. What think we of the freedom of industry, the security of rights, the diffusion of knowledge, the edifying of character and the exaltation of righteousness? Are not these as healthful subjects for youthful contemplation as the labors of the field or the shop? Is not the study of historic themes which have played an important part in the life of nations, of value to the children of the republic who are to bear its burdens and shape its destiny in the centuries forward?

But we are told that these are abstractions, and so they are, but they are to human history what gravitation is to the physical universe. The great forces are all invisible and impalpable, but in their manifestations they are the legitimate study of the schools. Principles are the soul of facts, and must be grasped by a people or they can have neither safety nor efficiency. It is urged that such studies render the children of the laboring classes discontented with their lot. Is it a sin for an American youth to aspire to the best which the institutions of his country open to his endeavor? Is the last infirmity of noble minds the first to be struck down in our system of technics? If it is, let us abrogate our constitution and advocate the castes and monopolies of despotism. For the first time in human history our fathers planted free public schools in this old Commonwealth of Massachusetts for the express purpose of fitting the youth for the proper discharge of their duties as citizens, and while I would urge an adaptation of the schools by a more practical system of instruction, to the industrial

necessities of the age, I should deprecate any limitation or subordination of studies calculated to secure the ends of the state for which they were established.

We should not hold the schools responsible for the appropriate and ordained duties of the family and the church, but the ends of the state are not limited to material prosperity. Indeed its highest function is the development of intellectual and moral power, and its schools should be so organized as to secure these objects in the order of their importance.

DISCUSSION ON INDUSTRIAL EDUCATION.

E. P. SEAVER, Supt. of Schools, Boston, Mass.: I am usually extremely afraid of mere theoretical conclusions. I prefer very much the teaching of experience, hence should prefer to hear the experience of others, rather than express my own views which are based on a very small amount of experience. As to the views expressed by the essayist, there was a good deal to which I could subscribe; but there are one or two points where I believe more standing-room might be allowed to those who believe in making an experiment of manual training, and hope for some good results from it. In the first place, I have not much fear that putting the jack-plane and hand-saw into the hands of boys is going to stop all their brain work. On the contrary, I believe that the use of tools is a very efficient means of awakening a very desirable and useful kind of mental action. It is, indeed, only a further application of the principle which runs through all "laboratory" work in the sciences; and which has redeemed chemistry, and is redeeming physics and natural science generally, from the domination of the old text-book and lecture methods.

If we look back fifty years ago and consider the methods according to which chemistry and physics were then taught—yes, even up to ten years ago—we shall see very clearly that it was the application of the "laboratory" method in these studies that made them worth anything at all for the processes of mental

development. Chemistry, when it consisted of abstract statements conned from the text-books or gathered from the lectures, was of small value as a means of mental training. Of course it was interesting to some minds, afforded a fund of "useful" information, so-called. It enabled the man of society to talk in an interesting way about some new discoveries in science, or the popular essayist to invent fresh and telling figures of speech; but a living, fruitful education of the mind, chemistry was not. And it only became a means of thorough mental discipline when it was pursued in the *laboratory*, that is, in the *workshop*. *Manual Training* is merely an application of the same principle to certain branches of study, and may have like results. But its claim for recognition is not based entirely on theoretical views. There is a general and widespread desire among the people for such training, and provision must be made for it somewhere. It may, indeed, be a question whether public or private aid should provide for it. That certainly may be matter for discussion. Some of the fears expressed by the objectors to this sort of training, however, seem to me unfounded. For instance, no practical person experienced in this work would think of introducing a "full fledged machine-shop into a country district school of ten pupils." In fact, the need of such industrial education does not appear or is not felt in communities where only ten scholars are to be found in the school. It is in the great cities, where the many advantages of the country are not to be obtained, that the need is felt, and there the want is beginning to be a very pressing one.

In the city of Boston, this is what is being done to meet this demand:—Boys of fourteen years of age and upwards are allowed under certain regulations, to visit a certain room centrally located, where a teacher gives them instruction in the use of wood-working tools, once a week for two hours. By taking boys from ten of the surrounding grammar schools, allowing twenty boys at a time to receive instruction, this teacher, in this centrally located room, can give instruction to two hundred boys in a week, and in a year can carry them through a pretty broad course of lessons in the use of wood-working hand tools. What can be accomplished in this direction in a year — in the way of results — I cannot now say; as of course it would be but guess-work on my part. This training school was only started in April last, and between April

and the middle of June, when it closed, there was opportunity for only seven of these lessons. In September, we hope to start the school again and run through a course of thirty-six lessons, occupying the whole school year. At present, these boys are selected from grammar schools by the masters; the only conditions being that the boys shall be over fourteen years of age and have their parents' consent.

Whatever may be thought of the theoretical merits of this plan, I can say from my personal experience that I have seen nothing exceed the enthusiasm with which these boys have worked since they started in their classes last April. One master told me that for trial he selected twenty of what might be termed the "rascals" of his school, who evidently did not take kindly to their regular studies, but the carpenter teacher assured me that these very boys were among the most earnest of his pupils. The method employed by this teacher is very simple; he gathers the boys about him and shows them what is to be done, and how to do it; then tells them to go to their benches and do it. They verily jump for their benches and go at their work with intense eagerness. Not only that, but the interest seems to be well sustained; the boys seem to be delighted with the opportunity to use their muscles, to put their brains into the work of their own hands; for they find that it is quite a mental problem, for example, to mitre a box, put it together, and yet keep outside of the box. It is a good mental exercise,—an object lesson in geometry, for instance. And this brain exercise is the secret of the interest manifested by the boys in the work. If the work were but the mere mechanical using of a set of muscles, the interest would soon die.

DR. J. D. PHILBRICK, LL.D., Massachusetts: The able paper on Industrial Education with which we have been favored by the Hon. Mr. Patterson, was to me very gratifying. In the first place, it sets forth in a felicitous and forcible manner, the supremacy of the brain over the hand, and the superiority in value and importance, of knowledge and intellectual discipline over mere mechanical dexterity and manual training. For my part, I cannot help regarding this paper as a timely and useful protest against the flippant decrying of the methods and means of education, sanctioned by centuries of experience, and the senseless exaggeration of the claims of mechanical instruction as a branch

of common school education, with which superficial writers are filling the columns of our newspapers and the pages of the current periodicals. The marvellous increase of wealth and of the comforts and conveniences of life, which are the characteristics of modern civilization are the direct result of the varied and ever-increasing application of science to the arts, which has been rendered possible by the acquisition of knowledge and the consequent cultivation of the reasoning faculty. Manual skill and manual training are, indeed, indispensable to the successful handicraftsman; but it would be a mistake to lower the standard of intellectual culture and instruction in useful knowledge in our institutions of learning, in order to gain time for the manipulation of the tools of the artisan; and hence the essayist has well said that "the loom of thought is more profitable and more practical than the loom of any material fabric; it will not pay to cultivate the hand at the expense of the brain." There is some danger of forgetting this wholesome doctrine amid the present clamor against book-learning and in favor of shop work, by some over-enthusiastic educational reformers.

Another feature of the paper with which I was especially pleased was the practical discussion of the question now so much agitated among us as to the place that should be accorded to handicraft in the elementary public school, — Shall the shop become an annex of the public school? Shall our school-houses be provided with shops for joinery, cabinet making, turning, forging, and filing, and shall the boys from ten to fourteen years of age be required to devote a part of the ordinary school time to a course of instruction in these shops? The essayist has not left us in doubt in regard to his view of this question. He has presented in a common sense way the undesirableness and impracticability of this radical change in the character, aims, and purposes of our system of education. In taking his stand in opposition to the scheme of placing the workshop in the elementary public school, he simply places himself in accord with the best educational authority both at home and abroad. This is not, as some seem to think, a new question. It was ably discussed in France more than a century ago. Its advocates in that country have made attempts at different times to carry this theory into practice; but their experiments have had little success in winning public favor.

The most remarkable and by far the most successful of these experiments is that of the Tournefort street school in Paris. I visited this school in 1878, and I have made a careful study of its history and operations. It is an elementary public school for boys. It is an unpretentious establishment. Besides the ordinary school rooms, it is furnished with four apartments, namely, — one for modelling and carving, one for a technological museum, where class instruction is given on materials and tools, one for wood work, and one for iron work. The workshop was added about twelve years ago. The school has been carried on under the most favorable circumstances. Simultaneously, the city authorities opened, as an experiment, a school for instructing young apprentices who had graduated at the common school in the fundamental manipulation of tools, in wood work and iron work. To the hand work was added drawing, practical geometry, and the elements of the natural sciences. This is a school purely technical in its character, being designed to form the good artisan, by serving as an introduction to the practical apprenticeship of the workshop. The latter school has been so successful that it has been decided by the city authorities to multiply this type to meet the wants of the whole population; the trades taught being somewhat varied to correspond with the leading industries carried on in different sections of the city. The Tournefort school, on the other hand, remains unduplicated. In some respects it has attained a good degree of success. It is hardly to be expected that a school of its type could be more successful; but if it has demonstrated any one thing, it has proved that it is not the kind of school wanted. France is alive to the necessity and importance of industrial education of every grade and description; but the pedagogical authority of that country appears to have given its verdict in favor of broadening the intellectual education of the elementary school instead of curtailing it by the introduction of the workshop into the common school. In Germany the drift of pedagogical opinion is in the same direction. In that classic land of pedagogy, the schoolmen of controlling influence firmly refuse to yield to instruction in handicraft any of the ground which has been gained for the intellectual education in the common schools. The question of introducing mechanical instruction into the common schools has repeatedly engaged the attention of the educa-

tional congresses that have been held in Germany; but it has found few or no advocates of the affirmative side. They say that the true function of the school is to form the man and not the artisan.

In opposing the introduction of the workshop into the common school, I by no means intend to antagonize the establishment of schools for manual training designed for graduates of the elementary school, like that of the Washington University in St. Louis, which has lately been copied in Chicago and Baltimore; but the St. Louis school does not pretend to be, and is not, in the proper sense, an industrial school. It claims for itself the credit of affording an improved type of general education of the secondary grade. It claims to be an improvement on the ordinary high school. The view I take of this interesting experiment is this:—I do not allow that it can be excepted as a substitute, either for the classical or non-classical high school with the manual element left out, but that it may be accepted as a useful supplement to those standard types, and that the establishment of one or more schools of this description is desirable in cities where the population is large enough to justify the large expense which such a school involves. But if I must choose between the two, I should prefer a school modelled after the type of the apprentice school in Paris, which, in my opinion, is to be the coming industrial school.

SUPT. SEAVER: Our attempt at industrial education in Boston is not in any way the putting of the workshop into the school. So far, it is but an experiment—a mere beginning. But if successfully developed, it will have a place, not in the grammar school, nor in any outside practise school, but a place in the school system side by side with the High School; so that the views of those who are seemingly opposed to the plan for the reason that grammar school studies may be curtailed or interfered with will be entirely met,—that is, provided the elementary education of the child can be finished by the time he arrives at fourteen. This is not always done at present, but it is among the possibilities of the future—perhaps.

SUPT. ADAMS, Plymouth, Mass.: I believe that it is good for all boys and girls to learn how to work,—I had to myself, and I rejoice in it; it is a help to me to-day. Of the need of such knowledge I have of late had a personal experience in my own

family. My boy has been regularly to school, is a good scholar, and physically a large fellow, but he has not learned to work. He cannot wield the scythe or build a stone wall, as I could at his age, nor can he do many other useful things. I believe that it would be of immense practical advantage to have him learn the use of tools. But the question arises, can I have him taught? I have not the time nor the means to provide the necessary tuition, but if the public school would do it, all situated like myself would feel the benefit. Such instruction, if general, will also go far towards solving the great social problems of the near future; the problems arising from arbitrary capital on the one side and arbitrary labor on the other.

SUPT. G. T. FLETCHER, Massachusetts: Manual training schools I believe may do even more than learn pupils to use tools. To-day the poor boy leaves school early because he has to prepare to earn a living, but if he could be prepared in the schools for his life's vocation, he might be induced to stay longer. His parents, also, would probably feel more willing to provide for his stay. Such an innovation would thus be a double benefit to the child.

MR. TWOMBLY, M. D., Cottage City, Mass.: Our boys and girls are to-day coming out of our city schools, physically weak and unfit for the practices of life, to a degree, I believe, that is alarming. Fifty years ago, a child had to do mechanical work as well as study, but to-day, without mechanical work, the young generation seems to be growing more and more indifferent even to studying. Why is this? I think it is because the pupils have nothing to do which they naturally like to do. They desire something outside of the book. Many a boy is called mischievous, who is merely throwing off his natural propensity for activity. Give him two hours work a day and it will quiet him. Why not then introduce this manual work, which also physically develops the pupils, into our public school system? What are our schools for but to develop the best men and women? Then why not fit them in the most natural manner?

HON. J. W. PATTERSON, Supt. of Pub. Inst., N. H.: I can agree with much that has been said by the various speakers who have preceded me, and readily admit, as stated by some of the gentlemen, that there are certain boys who possibly had better be at work than at school. If I were asked by the parents of such

boys, what to do with them, I should reply, put them to a trade or business where they will be doing something useful, and acquiring habits which will insure future success. Schools of technology in the populous wealthy centers are of great value. But the question for educators is, should this manual training, this trade teaching, be done in the public schools? Supt. Seaver of Boston, has ably described the work-shop school inaugurated in that city. This will no doubt prove a very interesting experiment, but whether successful or not, the question still remains, should the shop be recognized in the public school system. If it is, where are we to stop? Who shall determine the limits of such teaching? Suppose the dentists were to claim that their profession should receive due recognition; that the pupils should be taught to pull teeth. Why not? They might find many arguments for it, though possibly, but few patients. One gentleman speaks of the advantage of being able to build a stone-wall. This may be a very useful accomplishment; but it could not be extensively taught within the limits of an average country school-house, and, if practical, some parents might yet doubt the wisdom of having their boys and girls sent out into the fields to build stone-walls under the direction of a girl of eighteen or twenty. And indeed the same argument, more or less, applies to carpentering, smithing, and all other trades. There are some five hundred such callings, and it is useless to talk of teaching the fundamentals of them all, and if not all, why any? But what the schools can and should impart, is that mental training and discipline which will enable the pupil to do his work well, whatever his future calling may be. What he will need is intellectual resources and aptitudes.

Some enthusiasts tell us that these manual processes have in themselves great educative tendencies. Surely one might ask, why then does not the laborer, who daily wheels his loads of dirt out of the canal, become educated? Does he not work hard enough? If this argument is valid, our washerwomen, hod-carriers, and drudges generally, should be educational experts. Rather is it, that these manual processes have, in themselves, no educative tendencies, not until the mind within takes these outer subjects of handicraft and works them over in the brain, do they become productive of further thought and enter into the personality of the man so that he becomes strong and efficient. Mere muscle power

without the inner brain power is as nothing in the contest of life. Therefore the legitimate and paramount object of the school is to awaken the mind, and set it at work, so that thinking may become a habit, and by-and-by, not only a pleasure but a source of power. In short, it is the duty of the public school to make a thinking nation, and a nation so trained will not only eventually become the strongest industrially as well as politically, but its citizens will meet with success in the whole circle of life's duties and advance society to the forefront in the rivalry of prosperity and power. The highest industrial skill is an offspring of the mind, and we cannot afford to sacrifice brain-power for mere dexterity. Material success is an end to be provided for in organizing the institutions of a state, and every reflecting mind will recognize the utility of technical training, but profit is not the only nor the chief object within the scope of popular education. To enlarge the mental grasp and intensify the aspirations for high character, are more essential for the perpetuation and historic greatness of the nation than the accumulation of wealth. To take from the youth of the country any part of the brief period now conceded to direct intellectual and moral culture and devote it to the industrial trades, would strangle the highest hopes in the place of their birth. Our education should be practical, but we must not secure dexterity at the expense of directive power.

SUPT. SEAVER: I agree with Mr. Patterson that it is the object of the school to awaken intellectual power, but I must take issue when this manual training as one of the means for developing intellectual power is contemptuously cast aside. For my own part, I believe that machinists, for instance, are among the most intelligent of men. The thorough learning of the details and working of much of our complicated machinery is a study in itself, and perhaps as liberal in its tendencies as the study of Latin and Greek. As to the matter of taxation for trade teaching, I might say that if you have a right to tax me for the teaching of Latin and Greek to your son, why, on the other hand, should you not be taxed to defray the expenses of my boy while learning to use tools and understand the working of machinery?

PRINC. McDONALD, Stoneham, Mass.: I think that teachers, before committing themselves to any system of industrial training should weigh well the question, if we begin where are we to

stop? Besides, I think the outcry for such manual training of our pupils, which is just now being made, is entirely unnecessary. For most of the trades, there is no need of such long training of the hand. An intelligent boy is likely to learn as much of the shoe-making trade in five weeks as a dull boy in five years; the long continuous grind of five years only serving to deaden the mind to all outside endeavor; and the same is true of blacksmithing, carpentering, and a majority of the manual trades. It is bad enough for the pupils to have to devote a lifetime after school to such soul-stultifying work, which at best, leaves most of them mere automatic machines.

XIII.

NATURAL HISTORY IN ELEMENTARY SCHOOLS.

BY MISS LUCRETIA CROCKER, SUPERVISOR OF SCHOOLS, BOSTON.

In treating of Natural History as a branch of public school instruction, we should consider first, *why* it ought to have a place in elementary schools, and second, *when* and *how* it should be taught.

It is the main purpose of this paper, — written from strong convictions, based upon experience, of both the educational and practical value of the study of natural history, — to show that children are developed physically, mentally, and morally, by early and continuous observation of their relations to the natural world, in which they are to pass their human lives, and to find their productive industries. If this be proved, the inference is direct that such early training is fundamental, and a valuable preparation for more advanced studies.

On this last point let so high an authority as Charles Kingsley speak for us. He wrote thus: "Everything which helps a boy's powers of observation helps his power of learning; and I know from experience that nothing helps that so much as the study of the world about us, and especially of natural history: to be accustomed to watch for curious objects, to know in a moment when you have come upon anything new, — which is observation; to be quick at seeing when things are like and when unlike, — which is classification. All that must,

and I well know does, help to make a boy shrewd, earnest, accurate, ready for whatever may happen." What Kingsley has claimed for boys, we must claim for girls as well.

The recent storm of criticism upon our public school system, though often unjust and indiscriminating, has created a healthful agitation, in which much chaff will be blown away, while none of the true seed-grain of education will be lost. Already many teachers have broken the fetters of habit; and, by disposing of unnecessary technique and manipulation, have found more time for doing well whatever is worth the doing.

With the general admission that too much of the teaching and study in our schools has been fruitless; that large expenditures of time and money have failed to secure those practical results that tax-paying communities can cordially commend; the inquiry has come from all sides, "what is wrong? and what is the remedy?"

That the answers vary according to the prejudices and prepossessions of the critics, is natural; but it is within the province of this paper to refer to them only so far as they have a direct or remote bearing upon the question of Natural History as a branch of common school instruction.

Multiplicity of studies, oral instruction, non-adherence to text-books, are heralded as departures from the good old times; and, in the minds of many, account for all present defects. Many critics, therefore, urge a speedy return to "the three R's" pure and simple.

Yet all must agree that we need, in the lowest grades, variety in subjects and in their presentation; that we need, there, the live teacher more than the book, or, rather, the true teacher, with magnetic influence of voice and manner, to prepare children for the intelligent use of their text-books.

Dr. Stanley Hall's interesting article on "The Contents of Children's Minds" at five years of age, indicates both the difficulty and the importance of beginning with children as we find them on their entrance into school, and of proceeding to quicken their observing powers and to develop their intelligence.

Indeed, we must claim that we need *variety* in instruction through *all* the elementary grades, in order that the child's observation and thought may reach out naturally in many directions, taking whatever is within his grasp with as keen a zest as during the five years that preceded his school life.

If "variety is the spice of life," it is the necessity of childhood; and this necessity is the opportunity of the elementary teacher, who must work on different lines, in quick succession, to keep up interest and attention; yet always with the fixed purpose of making children mentally brighter and clearer by every new point made, and ready for the next in its natural order.

"Multiplicity of studies" is a good or a bad thing, according to our interpretation of it. If we mean leading children to look in many directions, but to see only what they are prepared to see *clearly* in each; remembering that "the eye brings with it the power of seeing," and the mind of thinking; and that whatever cannot be perceived by a child readily this week or this year should wait for his own discovery later;—if we so apply the phrase, then we must all believe in "multiplicity of studies" for the little ones.

This "multiplicity" is perhaps greater in the five years before school life begins than ever afterward. It is the work in play and through play, which awakens the powers, and adjusts the little lives to their surroundings.

Yet it is, after all, the "diversity in unity" which pervades the universe; and a skilful teacher, who loves children and knows how to meet them, will never lose sight of the harmony of development which is to be sought by varied means.

Later in school life, when the faculties have been trained, and the power of concentration developed, students may be limited to a few lines of special study, and pursue them with vigor and thoroughness.

We should, then, have a varied training for little children, with nature for their teacher, and so let their perceptive and their thinking powers unfold as naturally as the bud expands into the flower under the genial, pervading influences of sunlight, air, and moisture. Thus there will be no opportunity for uninterested minds, idle habits, or parrot-like recitation of the letter of text-books without the spirit of the subject taught.

Happily the importance of right beginnings in childhood, if we would secure good results in maturity, is now appreciated; and what can be a more appropriate introduction to school life than a series of familiar observation-lessons upon natural objects. Children find their pleasure in what they can see, hear, and examine; and the teacher who promotes this pleasure, establishes herself in their confidence, so that she may lead them as she will.

Moreover, material for the first steps in Reading is furnished by such oral lessons, and progress in learning to read is rapid when children are watching for the record of new words or simple phrases, in which they have reported their own observations.

Mr. William Lant Carpenter, in a report on science-teaching in the Liverpool and Birmingham schools, quotes

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eminent English authorities in support of his view that "there is a large class of minds whose activity is more easily promoted, and whose imagination is more readily fired by physical science than by literature, especially of the class most met with in elementary schools." Indeed, his pamphlet is entitled "Science Teaching as a Relief from the Overstrain in Education."

Many pupils called "dull" at their books, are naturally quick-sighted, and, had they been trained at the start to close observation and to correct inferences from observed facts, they would probably have developed mental activity, instead of becoming the discouraged element of their classes.

It is faculties, not facts, that we should have in mind. Establish good mental habits, and the facts will come in the process. The true work of the teacher, then, is to create right occasions for observation and thought, and to bring ideas to correct expression.

This kind of teaching — true oral teaching it is — can begin the first day of school life, while the printed page is still unintelligible to children, and their restless, untrained minds are held but a few minutes to one interest. In the beginning are many spare minutes which will be passed in listless idleness or active mischief, if not utilized by the versatile, cultured teacher.

And here let us pause a moment to reclaim the phrase "oral instruction" from the misuse into which it has fallen, and from which has followed its severe criticism.

Oral teaching is *not pouring into a pupil's mind*, be he young or older, while he waits, a passive recipient. It is directing and supplementing his mental activity, while he does his own observing, thinking, telling.

Oral lessons are not lectures but talks. They follow

the old Socratic method — mind calls upon mind — and children are trained to attention and concentration, so that, when advanced students, they will be able to grasp ideas by a single mental effort; to catch and keep the force of the spoken word of the lecture-room; and to take the meaning of the printed page almost at a glance.

Oral instruction is both preparatory for and supplementary to the use of text-books. Because its possibilities for good are great, so are its possibilities of harm. Surely, pointless, desultory oral teaching is as great a waste of time as the thoughtless repetition of unappreciated passages from a text-book.

Returning to our subject, we are ready to answer the inquiry, "*What and how shall we teach?*"

The material for nature-study is waiting for every elementary teacher. There can be no lack of it, even in the crowded city.

Everywhere something waits to tell its story, if only questioned rightly; and yet children, if not taught early how to see, may go through the world with their eyes shut. Said a companion to Thoreau, as they walked in the Concord woods, "How do you collect so many Indian arrow-heads?" "Why, I see them everywhere by the roadside, as I go along. There is one now!" and he stooped to pick up one that his friend had just passed by. This incident illustrates the difference between a trained and an unobservant eye. Let us try to open the eyes of our pupils so that they may find,

"Tongues in trees, books in the running brooks,
Sermons in stones, and good in everything."

By studying, first, the visible, familiar objects, children are prepared for lessons illustrated by effective black-

board drawings, pictures, and vivid descriptions, whenever specimens are not available. Their active imaginations respond to the teacher's call upon their conceptive power, and their beaming eyes tell that they are making mental pictures, as she talks and questions. Recently, in the middle of such a lesson addressed to the imagination, a little girl said, with an eagerness that must find expression, "I almost feel as if I could see it now."

We have dwelt long upon the most elementary stages of instruction, partly because "well begun is half-done," and partly because it is just here that methods have often been most pernicious, and that true observation-lessons are most needed.

Do we not remember how often, as children, we read about natural objects, but formed no mental pictures till, on some occasion, by happy chance, we saw, with genuine delight, an object known only through a text-book description? Seeing was believing, and having once, through perception, established confidence in the authority of our text, our imaginations began to form concepts out of what had been only barren words.

The higher stages of instruction in Natural History follow naturally upon right beginnings, — the methods are the same, but with broader applications. With a love of nature awakened early, and with habits of careful observation and accurate statement established, older pupils are prepared to take up true scientific study with earnestness and intelligence. They are ready for further investigation, comparison, and inference; and, when their "accumulated observation has become experience," so that they perceive the harmony and gradations of nature's order, they are prepared to classify and generalize their acquired knowledge.

The objections made to elementary instruction in Natural History arise, mainly, from a misunderstanding of the intention of its advocates. It is neither desired nor desirable that children should struggle for scientific nomenclature, crowding their memories with terms and definitions. When a mineral, plant, or animal has been examined and the teacher needs to designate a part or organ, the need is frequently anticipated by the children, who are always eager to put names to things. Are they not thus adding daily to their vocabularies? And does it make any difference whether a word is short or long, if they have come to the need of it? Is elephant harder for a child than horse? or mahogany than oak? or petal than leaf? Surely, when a child has distinguished the butterflies that flutter among the flowers, and learned to call them by name, he remembers these names with a tenacity which we unfortunates, who learned them later in life, often covet. The use of needed terms is to children the pure pleasure of calling things by their names; and is this not as good exercise for the memory as any other? And does not the demand for each new word imply an added observation, more power to see likeness and unlikeness, more capacity for enjoyment and usefulness through life?

A part of the children in our schools, born into homes of ease and intelligence, get this early training, under judicious direction, among pets, flowers, minerals, and pictures; by listening to stories and fairy tales. It is their birthright, and gives the general information and power of appreciation which aid them in maturer studies, whether literary or scientific.

But multitudes of helpless little children come, at five years of age, from the streets and alleys of our cities,

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utterly ignorant and untrained, their faculties dormant, their minds vacant, their motions clumsy. They must learn to listen and to understand. They must have practice for hand and eye. We must arouse and interest them while we teach. Perhaps they are indifferent at first; but every lover of children knows by what they are attracted. Under gentle leading, they will soon begin to observe, to imitate, to be occupied with whatever is placed before them.

They will assort pebbles and shells, noticing resemblances and differences in color, shape, and markings. They will watch the ways of familiar animals, — their kittens at home, the dogs, horses, pigeons, in the city streets; and will soon begin to tell, in broken speech, what they see and know, and to be ready for the written word-symbols of their simple thought.

This is the time for a variety of simple oral lessons on the parts of their own bodies, — How they walk, jump, run? What good actions the hand and foot have? What bad actions they may have? What happens when they prick or cut their fingers? What they do with each special sense, and what it does for them? and so on.

The teacher can appeal to their love of flowers, — encourage the care and enjoyment of plants in the school-room. She can examine with them the parts of a flower, each child holding one, — not at first to get their names, but to cultivate the observation of resemblances and differences. She can watch with them the opening buds and the fading flowers; and so, in time, pass from the beauty to the use of blossoms in forming fruits or seeds.

When children have been attracted by flowers, they will pass readily to lessons on other organs of the plant, to the simple study of leaves, stems, roots; their different forms and uses.

It is unnecessary to refer to the great advantages which country teachers have for such instruction. Their resources are unlimited. We would rather encourage the teachers of our city schools to bring a little of the freshness that surrounds child-life in the country, to their pupils, who are denied green meadows with buttercups and daisies, and barn-yard animals.

Should the question arise, Is this practicable? we answer, "Yes, if we only remember how simple the beginnings should be, and how easily a child is pleased." The veriest weed is a treasure, if we make it tell its story.

Here let us quote an enthusiastic teacher's report of resources for simple plant-lessons: —

As the first step in the right direction, let the teacher provide a few flower-pots or plates of clean sand, and suggest that the children bring some seeds, such as beans, peas, morning-glories. Then let the ready little hands drop them into the moist sand, and the busy brains wonder what they will do down in the darkness. When the seedlings start, have a second set planted, and, a few days later, a third. When the largest seedling is four or five inches high, have more seeds of the same kind, — beans, we will say, — soaked in water for a day. When this is done, systematic study can begin. Let the children carefully remove the bean-plants from the sand, and place them in a series running from the largest down to the soaked seed. Then let each child read for himself the wondrous revelation, guided only by well-directed questions. "Do not" says Professor Goodale, "show the pupil what he ought to see with his own eyes and without help. The teaching which is advised in these lessons is based upon the belief that *the pupil must earn his facts.*"

Each child should discover the wee plantlet tucked away in its snug little house. He should see how one part, in growing, points upward and the other downward. If some in the class wonder whether the little root would not grow toward the light if the bean

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were planted the other side up, let them try the experiment, and prove that no coaxing can persuade it to be untrue to itself.

In course of time the children will come to know that the plant is only the developed plantlet, and will identify the parts of the one with their rudiments in the other. While doing this, the question will arise, where did the plant get its food while growing? By insisting upon close observation, and by skilful questions, the teacher can lead the children on till the thought comes to some one that the "snug little house" was filled with food. Sure enough the secret is found out, for this was a store-house from which the plant drew its nourishment till, as Professor Goodale happily remarked, "it was old enough to earn its own living." [*From the "Primary Teacher."* March 1879 — p. 213.]

And again : —

In another school our eyes fell upon a sponge, which was doing what Mr. Hale would call "its level best" as a flax-raiser. Beside it, on moistened blotting-paper, barley was growing, while a few bean-plants were left in the sand, out of many that had disappeared while telling the story of their birth.

Something, however, beyond this spot of greenness attracted us. A part of an old fire-escape that had spent its days in idleness had now caught the spirit of the times, and allowed itself to be converted into "The Childrens' Cabinet." On the shelves, freshened with bright-tinted paper, were thirty-four varieties of woods, all brought by the children.

The eyes of the little ones looked with pride and delight upon this, their first collection. Nor was their interest confined to the school-room, as the teacher learned one day somewhat to her dismay, be it said, when looking over the writing books. A number of the best blotters were missing, and when, without suspecting their fate, inquiries were made, it was found they had been converted into "gardens." In twenty homes "a garden" was growing in the middle of March! As we happen to know that these are homes of want, where art, even in its simplest form, never comes to make poverty more endurable, we can but rejoice over the touching picture of these happy children watching their little oases, and who can tell what flowers may bloom in their lives from the seeds sown in their paper "gardens." [*From the "Primary Teacher."* May 1879 — p. 271.]

In further illustration of our point, let us quote from a teacher's notes of lessons on Insects, given to a class of children from ten to twelve years of age: —

First comes the lesson on the grasshopper. Every child is provided with a preserved specimen, pinned to a small strip of cork, to aid in handling it. The children can tell that grasshoppers leap in grass; some have seen green grasshoppers in shrubs. Wherever they have visited in the summer, they have found grasshoppers, and they therefore conclude that these little insects are very abundant.

From lessons already given on the simpler animals, the scholars have formed a habit of placing their specimens with the heads turned away from them, the most favorable position for observation. They then see the body with organs on either side, which the teacher calls appendages, — writing the word on the blackboard. They observe that the two sides of the body are similar, like the sides of their own bodies, and that the horny skeleton is outside, and not inside like the horny frame-work of the sponge or their own bony skeleton.

Most of the class describe the body as divided into three parts. The head is examined, with its great checkered compound eyes and tiny single eye. The interest increases when the middle part, or thorax, is described; for George says it is made of two rings, and Mary is positive there are five, while Joe, remembering the lesson on the lobster, thinks there are three, because there are three pairs of legs.

The teacher is appealed to, but she only says, "We will leave the question an open one. Perhaps when we have studied more insects we shall gain a little light."

"The forward part of the thorax is like a broad collar or cape," says one. "It moves," says another. "The head moves with it," says a third. "It has a funny little spine," says a fourth.

The abdomen is next described.

"It is ringed like the lobster's," remarks Joe, always on the alert to detect resemblances. "It has a seam on each side." "The rings are movable." Other observations are made, and then the appendages are studied. The children describe the jointed antennæ, and the stout teeth with the delicate little jaws.

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A blackboard drawing of the mouth-parts enlarged makes the subject clearer. Elsie has seen a grasshopper eat, and is eager to tell what she knows.

The short legs with their tiny claws, and the long leaping legs, interest the children; and at last, at the suggestion of the teacher, they are ready to spread out the wings. The two pairs of wings are observed and compared, and the pupils are led to infer that the second pair is the more useful in flight.

So far the teacher has not given her pupils a single fact. *They have earned their facts by their own work, and given them to the teacher.*

Now she plays on a common steel file with a quill-pen, and shows them how an eminent naturalist has set the "Songs of the Grasshoppers" to music. She briefly describes the wonderful air-tubes and air-sacs in the grasshopper's body, which they can see for themselves when older. She tells them to look for young grasshoppers in July, and to find out how they grow; to see how the large grasshoppers use their feet in leaping, and how they breathe.

Later a description of the grasshopper is written. This is a language as well as a science lesson. Several pupils, however, instead of writing descriptions, make preparations of the insect, by separating the three parts of the body with their appendages and glueing them on card-board. These preparations are placed in the school cabinet, and are valuable additions.

When the grasshopper is familiar, typical insects of the different orders are observed and compared with it. . . .

One spring day an aquarium was placed on the teacher's desk, in the form of a preserve jar with larval dragon flies, whirligigs, water-boatmen, snails and toads' eggs, all waiting to teach lessons of wondrous truth and beauty to the boys and girls.

The problem, "How shall I obtain the necessary specimens for class instruction?" which perplexed the teacher at first, was soon solved, while, at the same time, she found in the children's enthusiasm and increased mental activity, the inspiration that lightens her labors.

Proper material, right method, and enthusiasm for the work, these are the necessities. Better never have Natu-

ral History in our schools than have it taught in a technical, uninteresting, or bookish manner.

The teacher must have a love for the study or she cannot create a love for it in the children. She must have knowledge, and an inspiration to reach out after more knowledge continually, or she cannot create in others a desire to learn. But let Frœbel's words encourage every earnest teacher who hesitates to begin. "You should not say, 'I have no knowledge of the objects of nature.' Should you have had only the most elementary instruction, faithful observation of nature will bring you knowledge more living than that of books. And this knowledge rests upon observations which the simplest man is able to make, often upon phenomena which he can see better than the most costly experiment will show him, *provided he takes his eyes with him to see with*. The question is not how to communicate acquired knowledge, but how to acquire knowledge by observation."

Among the books that will be especially helpful to teachers of elementary science, may be mentioned Dr. Gray's "How Plants Grow" and "How Plants Behave;" Miss Buckley's three volumes, as charming in style as they are true to science; Prof. Morse's "First Book of Zoölogy;" the series of "Guides for Science Teaching," prepared under the auspices of the Boston Society of Natural History, in which Dr. Goodale, Prof. Hyatt, Mrs. Agassiz, Prof. Crosby, and Mrs. Richards treat of common plants, common animals, common minerals and rocks; and the interesting volume entitled "Homes without Hands," by Rev. J. G. Wood.

Sets of specimens, illustrative of the "Guides for Science Teaching," can be obtained of the publishers.

Though the early teaching cannot be too simple, it

must have method and purpose. If "order is Nature's first law," surely in studying Nature we should observe the true order and sequence. For the lack of this, and of the knowledge that makes it possible, many teachers fail to keep up interest and to secure good results.

Whether we take plants, animals, or minerals, each lesson should be a stepping-stone to the next, — nothing should be desultory or left to the chance of the hour.

To insure success in graded schools, there must be a plan for each class, each week, each lesson — and in carrying out the plan, the children should have the method of the naturalist from the start. *To observe, compare, infer, and afterward to classify* — this is the true sequence.

From simple study of familiar plants and animals, choosing, as far as possible, *types* of classes, the lessons will pass naturally to the differences between these types, and to the comparison of other specimens or pictures with these types, till the scholars unconsciously hold the key to natural classification. They will be delighted to become acquainted with the near and distant relatives of the lily and the rose, the duck and the eagle, the cat and the squirrel.

These and similar groupings are all we care for with children. In these we associate the flesh-eating and grass-eating, the gnawing and the cud-chewing animals; we discover with children, the adaptation of structure to needs, — as in fins, wings, arms; hoofs, claws, nails; scales and fur; lungs and gills.

After the powers of observation are somewhat quickened, a course of lessons on common metals and minerals should be presented. For these we have the advantage of specimens that are not perishable, and it is practicable

to provide sets of class-specimens, so that each pupil may have in hand the mineral to be studied. The facts obtained by examination, through the sense of touch as well as of sight, should be stated by the pupils. As, for instance, in a lesson on the comparison of lead and iron, grammar school pupils can decide which is harder, which heavier, which rusts easily, which bends easily, which is magnetic, and so on.

After examining a few common elements, ("single things," as a child named them), including illustrations of solid, liquid, and gaseous forms of matter, (iron, mercury, oxygen), the lessons pass naturally to minerals that are compounds, beginning with the common iron ores, to which iron-rust directly leads.

In the examination of fourteen well-known minerals, a class will have familiar illustrations of chemical combinations; will touch upon the mode of extracting metals from ores; the decay of rocks to form soils, etc.; and, best of all, many of the pupils will begin to make collections and so be enticed to healthful exercise, further discoveries, and greater familiarity with specimens. This plan has been tried with success in grammar schools.

Let every teacher of natural history encourage the individual collections. Varieties of seeds, grains, woods, pressed plants, shells, insects, minerals, arranged and reárranged in the children's cabinets, will give profitable occupation.

The material and character of the science-teaching must vary with time and circumstances, and with the receptive state of the pupils. These are the only limitations.

Lessons on the plants and animals of other climates, and on the mineral resources of different regions, in connection with the study of geography, will cause justifiable

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digressions from the special work in natural history assigned to any class. A reading lesson may be illustrated by specimens and drawings that belong to the work of another year, in the regular sequence of science-lessons; and, in this way, one teacher, will incidentally strengthen the work of another. These occasional lessons should, however, be digressions only from a well-considered plan of special work for each class.

The course of study most familiar to the writer, is that of the Boston Public Schools, which is therefore quoted as illustrating the order and sequence of lessons already suggested. The Observation-Lessons for Primary Schools include, beside studies of Nature, lessons on Color, Form, Place, Size, Qualities. These, as preliminary to and parallel with lessons in Natural History, not only aid in developing the observing faculties, but give the vocabulary needed for descriptions of natural objects. These descriptions become, in their turn, the material for language-training.

Observations of natural features and of familiar phenomena belong with these early studies in natural history. They must, of course, be such observations as children can make when encouraged and directed by their teachers, with the double purpose of promoting right training and of preparing them for the study of physical science in higher schools.

The following is the plan pursued :

PRIMARY SCHOOLS.

2 hours a week.

FIRST YEAR.

Lessons on the HUMAN BODY: Parts of the body; their uses and movements; the care and protection of them.

Simple, conversational studies of —

(a) FAMILIAR PLANTS: Flower, leaf, stem, root, bud, fruit, seed.

(b) ANIMALS: Cat, dog, horse, cow, rabbit; pigeon, sparrow; duck, hen.

Observations of NATURE: Sky, clouds, rain, snow; sun, moon, stars; ground, rocks, water.

SECOND YEAR.

Lessons on the HUMAN BODY, continued: The special senses — what they are and how used.

Lessons on PLANTS and ANIMALS, continued: Those previously studied, to be compared with one another, and with others that are less familiar; different kinds of leaves; parts and shapes of flowers; other animals of the family of which the cat is a type; and so on.

Observations of NATURE: Repeat those of Class III., getting fuller descriptions. Add air, wind; dew, frost; hill; brook or stream; etc.

THIRD YEAR.

Lessons on the HUMAN BODY, continued: Add lessons on how we move; how and why we eat; offices of the blood; how we breathe, and why we need pure air; uses of the skin and nerves.

(a) PLANTS and ANIMALS grouped by resemblances, habits, and uses; Trees, shrubs, vegetables; grass-eaters, flesh-eaters; animals with hoofs, claws, wings, etc. In preparation for geography, those animals that live on the land; in the water; fly through the air; live in hot countries, in cold countries; etc.

(b) Familiar OBJECTS classified as vegetable, animal, or mineral.

Observations of NATURE: The seasons; changes in time of sunrise and sunset; the new moon, the full moon — where first seen; the Evening Star, the North Star, the Great Dipper; the natural features of the vicinity.

Under the head of Elementary Science for Grammar Schools the course of study reads as follows: —

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GRAMMAR SCHOOLS.

2 hours a week.

FIRST YEAR.

1. Lessons connected with the first lessons in geography :

(a) PLANTS useful for food, clothing, fuel, lumber, etc., (as grains, cotton-plant, palms, bamboo), to be studied from observation, when practicable, and from pictures or black-board illustrations.

(b) ANIMALS useful for labor, food, clothing, etc., (as camel, sheep, silkworm, shell-fish, coral, sponges). The plan of study the same as for plants.

(c) Useful METALS and MINERALS — where found and how obtained.

2. PLANTS, *May to July*: Growth of seedlings, observed and compared (beans, peas, corn, pine, maple, etc.).

3. ANIMALS: (a) Star-fish and sea-urchin (dried specimens), examined and compared. (b) Oyster, clam, and snail, compared. (c) Shells of different forms, examined.

4. OBSERVATIONS OF NATURE: (a) Primary-school lessons, reviewed and continued. (b) Air; wind; moisture in air. (c) Different forms of water (steam, frost, snow, hail, ice).

SECOND YEAR.

1. PLANTS, *Sept. to Nov.*: (a) Fruits, seeds, roots, useful woods, observed and compared. (b) Formation and position of leaf-buds, observed. *May to July*: (a) Wrappings and unfoldings of buds, observed and compared. (b) Growth from buds, branches, bulbs, and slips. (c) A simple study of tree blossoms (willow, horse-chestnut, apple, etc.); and of common flowers (violet, lilac, buttercup, dandelion, etc.) (d) A simple grouping of plants.

2. ANIMALS: (a) A study of the lobster, and of typical insects and vertebrates, from observation when practicable, and from drawings. (b) A general review of animals studied in previous years — their food, how obtained; the relation of food to climate, and of structure to food (grass-eaters, flesh-eaters, birds of prey, waders, etc.). (c) A simple grouping of animals.

3. OBSERVATIONS OF NATURE: (a) Sun, moon, and stars — their rising and setting. (b) Drainage of the vicinity (observations after rain). (c) Different kinds of rock, soil, etc.

Simple, conversational studies of —

(a) FAMILIAR PLANTS: Flower, leaf, stem, root, bud, fruit, seed.

(b) ANIMALS: Cat, dog, horse, cow, rabbit; pigeon, sparrow; duck, hen.

Observations of NATURE: Sky, clouds, rain, snow; sun, moon, stars; ground, rocks, water.

SECOND YEAR.

Lessons on the HUMAN BODY, continued: The special senses — what they are and how used.

Lessons on PLANTS and ANIMALS, continued: Those previously studied, to be compared with one another, and with others that are less familiar; different kinds of leaves; parts and shapes of flowers; other animals of the family of which the cat is a type; and so on.

Observations of NATURE: Repeat those of Class III., getting fuller descriptions. Add air, wind; dew, frost; hill; brook or stream; etc.

THIRD YEAR.

Lessons on the HUMAN BODY, continued: Add lessons on how we move; how and why we eat; offices of the blood; how we breathe, and why we need pure air; uses of the skin and nerves.

(a) PLANTS and ANIMALS grouped by resemblances, habits, and uses; Trees, shrubs, vegetables; grass-eaters, flesh-eaters; animals with hoofs, claws, wings, etc. In preparation for geography, those animals that live on the land; in the water; fly through the air; live in hot countries, in cold countries; etc.

(b) Familiar OBJECTS classified as vegetable, animal, or mineral.

Observations of NATURE: The seasons; changes in time of sunrise and sunset; the new moon, the full moon — where first seen; the Evening Star, the North Star, the Great Dipper; the natural features of the vicinity.

Under the head of Elementary Science for Grammar Schools the course of study reads as follows: —

GRAMMAR SCHOOLS.

2 hours a week.

FIRST YEAR.

1. Lessons connected with the first lessons in geography :

(a) PLANTS useful for food, clothing, fuel, lumber, etc., (as grains, cotton-plant, palms, bamboo), to be studied from observation, when practicable, and from pictures or black-board illustrations.

(b) ANIMALS useful for labor, food, clothing, etc., (as camel, sheep, silkworm, shell-fish, coral, sponges). The plan of study the same as for plants.

(c) Useful METALS and MINERALS—where found and how obtained.

2. PLANTS, *May to July*: Growth of seedlings, observed and compared (beans, peas, corn, pine, maple, etc.).

3. ANIMALS: (a) Star-fish and sea-urchin (dried specimens), examined and compared. (b) Oyster, clam, and snail, compared. (c) Shells of different forms, examined.

4. OBSERVATIONS OF NATURE: (a) Primary-school lessons, reviewed and continued. (b) Air; wind; moisture in air. (c) Different forms of water (steam, frost, snow, hail, ice).

SECOND YEAR.

1. PLANTS, *Sept. to Nov.*: (a) Fruits, seeds, roots, useful woods, observed and compared. (b) Formation and position of leaf-buds, observed. *May to July*: (a) Wrappings and unfoldings of buds, observed and compared. (b) Growth from buds, branches, bulbs, and slips. (c) A simple study of tree blossoms (willow, horse-chestnut, apple, etc.); and of common flowers (violet, lilac, buttercup, dandelion, etc.) (d) A simple grouping of plants.

2. ANIMALS: (a) A study of the lobster, and of typical insects and vertebrates, from observation when practicable, and from drawings. (b) A general review of animals studied in previous years—their food, how obtained; the relation of food to climate, and of structure to food (grass-eaters, flesh-eaters, birds of prey, waders, etc.). (c) A simple grouping of animals.

3. OBSERVATIONS OF NATURE: (a) Sun, moon, and stars—their rising and setting. (b) Drainage of the vicinity (observations after rain). (c) Different kinds of rock, soil, etc.

THIRD YEAR.

1. COMMON METALS, MINERALS, AND ROCKS:

(a) Simple mineral substances — characters of: (1) Metals that are native minerals (gold, silver, copper). (2) Metals from ores (lead, zinc, tin, iron). (3) Non-metals (sulphur, carbon). (4) Gases (oxygen, hydrogen).

(b) Compounds: Iron-rust, commonly used iron ores, carbonic-acid gas, quartz, salt, pyrite, galena, limestone, gypsum, feldspar, mica, hornblende, granite, and other common rocks.

2. OBSERVATIONS OF NATURE connected with the study of geography: (a) Apparent movements of the sun, moon, and stars. (b) Varying time of their rising and setting. (c) Difference in heat of the sun's rays at different hours of the day. (d) Change in direction of the sun's rays coming through a school-room window, at the same hour, during the year. (e) Varying length of the noon-day shadows. (f) Changes of weather, wind, and seasons.

FOURTH AND FIFTH YEARS.

Physiology and Hygiene.

1. (a) The bones as a framework and protection. (b) Joints, ligaments.

2. (a) The muscles as a motor apparatus. (b) Exercise, conditions for; amount and limits of.

3. (a) The skin as a covering. (b) Secretion, excretion; bathing; clothing.

4. The nervous system as a directive power; the organs of.

5. The special senses.

1. Growth and renewal of the parts of the body — how secured.

(a) The digestive apparatus and digestion. Food, the quality and quantity of, etc.

(b) Circulation — the organs of. The blood as a circulating medium.

(c) Respiration — the organs of. Ventilation. The vocal apparatus.

2. (a) The digestive organs of man and other animals, compared. (b) Their modes of breathing, compared. (c) The amount of animal heat, compared.

In addition to the above, simple, experimental Physics is assigned for the last two years of the Grammar School course.

In the High Schools come Elementary Botany, Zoölogy, Physics, Chemistry, and Astronomy, with the same method of observing or experimenting, and of making inductions and generalizations therefrom.

By a well-planned series of progressive lessons running through the primary and grammar grades, — a natural growth, slow but steady, — we may secure right training, which is our main purpose; and also results full of interest. Our pupils will thus learn how the sponges they daily use and the stony coral they admire, grew beneath the waves; how the star-fishes and prickly sea-urchins crawl by their myriad suckers; how the oyster, though dumb, can tell a wonderful story of shell-tinting and pearl making: how the busy bees, enticed by color and fragrance to the nectar-cups, carry pollen-dust to perfect the seeds. They will learn that baby-toads did not rain down in the summer shower, but, being ready to part company with fishes, took advantage of its dampness to migrate to gardens and fields, where, in the wise economy of nature, they devour the too greedy insects. Or again, how by wonderful instincts, so akin to reason that he is daring who tries to draw the line between, the various "homes without hands" are made. This knowledge and much more can our children gain of the animal world.

In the beauty of spring time and summer, they can discover some of the secrets of plant life; see seeds unfolding into plantlets, each according to its kind; and find in a bud, as it throws off its winter wrappings, the promise of a branch. They can discover buds in dis-

guise in the potato, the grasses, and the bulbs, and see leaves doing duty as tendrils and spines. They may learn that starch and sugar, cork, and textile fibres, all have their place in plant-economy, before we appropriate them to our use.

We cannot stop to sketch how these lessons will broaden out and include the history of coal, with its oils and dyes; salt; iron and other metals; the forms of water as it changes from fog to cloud, rain, hail, and snow; with other natural phenomena, and even the sources of heat, light, and motive power.

We have tried to show the *educational* value of the study of Natural History, and indirectly, the *practical* value. The faculties thus cultivated, in the pliant period of youth, will serve the man or woman through life. Educated eyes and hands, and correct judgments accurately stated, promote "readiness, efficiency, confidence, and caution" in meeting the demands of life.

It has been said "Whatever you would have appear in the life of a nation, you must put into its schools."

All over our wide country are calls for skilled artisans, intelligent manufacturers, and miners; for laborers who must deal daily with natural products, (oils, dyes, gums, etc.), or perhaps search for them in their hiding places. Early familiarity with nature will serve all these classes.

The practical men of the country begin to call loudly for the help of science. The preservation of forest land, the protection of crops from the invasion of destructive insects, the conditions of continued tillage, these questions and many more require to be met not by specialists alone, but by a general intelligence which can perceive the mutual dependence of social and material interests.

Last, but not least, is the *moral effect* of encouraging early a love and reverence for the least as well as the greatest of the Creator's works.

"The Massachusetts Society for the Prevention of Cruelty to Animals" has called the attention of teachers to their large opportunity for inculcating "the duty of mercy to the dumb creation," and has asked children to sign pledges "never to torment any animal large or small." How can this protection for animals be better secured than by exciting an interest in them?

Let children become interested in finding out what the ants are doing, as they run busily about their little hills; in seeing what and how the caterpillars eat, how they form their chrysalids, or in watching their wonderful transformations; in seeing the earth-worm stretch its lazy length on the city sidewalk after a rain (for it is our perversion and not nature that leads the child to spurn the worm). When thus interested they are turned from temptations to cruelty. When encouraged to watch the opening of the buds, to count the varieties of leaves and flowers, they will not thoughtlessly catch at and destroy the scanty city shrubbery.

Some of our teachers know what an influence for good a silent pet in the school-room can be. When rough boys vie with each other to get a daily supply of salt water for their teacher's sea-anemone, and shyly inquire if it cannot share their luncheon apple, that teacher knows she has found a vein of tenderness which she can work in at her will, and a bond of union that will make her discipline easy.

Naturally and helpfully, in connection with the observation lessons, come stories and fables that illustrate traits of character in animals so like their own that children

can make the application, — imitative as the monkey, faithful as the dog, persevering as the spider, sly as the fox. The impression of one such story, heard several years ago, in a primary class-room, is still clear and strong. In simple, vivid language, a young teacher described a Scottish moor, with its blooming heather, its browsing sheep, and watchful shepherd with his crook and dog. Then the coming of the storm, the scattering of the flock, and the diligent search till every lost sheep was found by the faithful dog. Sparkling eyes were evidence that the story was new. *Faithfulness* was the text of that special lesson, and faithfully was it illustrated; while questions and answers, running through it, indicated the natural history study on which the charming description was based. When the lesson was carried one step further, earnest faces told that each little heart knew some way to be as faithful as the shepherd's dog. Who shall measure the effect of such vivid teaching and of such unconscious influence upon little children?

There are wise and thoughtful teachers who believe that the study of Natural History will help to an early interpretation and acceptance of the laws of right living. When from repeated observations, the fact has become evident that the fullest development of plant and animal is possible only under favorable conditions, will not even the young student be led to infer that the same is true with human life? Will he not think that neglected children might have healthier bodies and stronger brains, could they, too, have plenty of sunshine, food, water, and air? When he discovers the wonderful adaptations in insect-life, — how the dragon-fly is fitted to catch its food on the wing; and the mantis to seize its prey while silently waiting; how the grasshopper is adapted to

nearly every clime, and the beetle to live upon land and in water,—will he not, as he thinks upon these things and grows to maturity, come to have greater faith in his own adaptive powers, whereby he may become the master, rather than the slave of inevitably adverse circumstances? When he learns how a species of the slave-making ants has lost the use of its mouth-parts, and even the instinct of feeding, by keeping slaves to supply its food, will he not think of the debasing effects of dependence and laziness? These views are not merely idle theories. Every teacher knows that children do think and reason, that they put questions which the wisest dare not try to answer. It is the firm conviction of those who have experience that the study of Natural History, by bringing the young into close relations with the laws that govern animal life, will tend, in time, to the development of stronger, more efficient bodies and brains, to more temperate desires, to larger aims;—in brief, to the practical application of the principles of right living.

And now, in closing, let us repeat that we claim a place for Natural History in our schools, not to provide students with “bundles of dry facts,” but to secure for all our children, healthful training of body and mind; to prepare them for various industries; and to supply them with new resources and good influences for leisure hours.

Let us hope that the poet's song of Agassiz may sometime be repeated in fainter accents for every child.

“ And Nature, the old nurse, took
The child upon her knee,
Saying, ‘ Here is a story-book
The Father has written for thee.

" 'Come, wander with me,' she said,
 'Into regions yet untrod ;
And read what is still unread
 In the manuscript of God.'

" And he wandered away and away,
 With Nature, the dear old nurse,
Who sang to him night and day
 The rhymes of the universe.

" And whenever the way seemed long
 Or his heart began to fail,
She would sing a more wonderful song
 Or tell a more marvellous tale."

XIV.

REFORM OF THE TENURE OF OFFICE OF TEACHERS.

BY JOHN D. PHILBRICK, LL.D.

Good teachers, and what next? There is no next. This is the meaning of Jules Simon in his saying, "The master is the school." In this sense the great German pedagogue, when asked what his system was, made the well-known reply, "I am the system." This was Garfield's thought, when paying a merited tribute to his great college-master, he said, "Give me a log-hut with only a simple bench, Mark Hopkins on one end and I on the other, and you may have all the buildings, apparatus, and libraries." This was Horace Mann's idea in declaring the teacher's seminary to be one of the greatest instrumentalities for the improvement of the race. Hence, the pivotal question in pedagogy is the question of the teacher, everywhere and always. The cause of education and the cause of the teacher are one. The best criterion of merit in a school system is to be found in the character and qualities of the teachers in its service.

There is no really fruitful educational reform which does not provide for increasing the competence of teachers. The originators and founders of our normal-school system, Olmstead, Carter, Russell, Brooks, Mann, Barnard, and others, all maintained and acted upon this theory. They held that the end in view, the ideal education, imparted in the ideal school, could come only

through the ideal teacher. In maintaining this theory they stood on solid ground; their position was impregnable. The instrumentality which they advocated as essential for the realization of their idea, was the normal school for the professional training of teachers. Too much cannot be said in praise of their labors and devotion to this great cause. The establishment of normal schools was a great achievement. It is not to be doubted that the normal school is an essential element in a good school system. But history does not justify the assumption that it is the fundamental requisite for securing competent teachers. Something else more fundamental still is necessary to the full success and the full utilization of the capabilities of the normal school. That prerequisite is a desirable status for the teacher who has made his preparation in the normal school.

The creation of such a status has no doubt been too much overlooked and neglected by our educational leaders and reformers, and the reason is obvious. The indispensable requisite for such a status is security,—certainty of position; such security and certainty of position as is afforded by tenure of office during efficiency and good behavior. Fifty years ago this reform was impracticable. Every school system must, in the nature of things, be in substantial harmony with the other institutions of the country where it exists. In forming the school system of France, Guizot and Cousin took lessons of Prussia and Holland, but they were obliged to adapt their plan to the actual state of things in their own country.

Mr. Forster, on drawing up his school bill, the new Magna Charta of the English people, had at his command all the available results of foreign experience; but he was under the necessity of shaping every provision

with reference to existing national institutions and customs. So our educational pioneers of half a century ago had to shape the fabric and spirit of our school system, so far as they were instrumental in introducing modifications and improvements, in conformity with existing political and social arrangements. Hence any attempt on their part to advocate any reform relating to the status of the teacher, in conflict with the prevailing theory and practice touching the status of other public servants, would have been impracticable and utterly futile. Improvements do not advance on all lines simultaneously. They made advancement where advancement was possible.

Now what was the status of public officers and employes, whether in the service of the Nation, the State, or the municipality, fifty years ago, in respect to tenure of office? Our political institutions are founded upon the theory that public officers are public servants, and precisely at that period, more than at any time in our history, the opinion prevailed that the officers and employes of the public had no interest or property whatever in the offices and situations which they occupied. Out of this prevailing sentiment grew the pernicious custom of what is called rotation in office; where the tenure of office was not fixed by law, as in the case of the judiciary, custom limited the tenure to one or two years. Taking advantage of the prevalence of this sentiment, which claimed for itself the credit of being the spirit of true democracy, President Jackson inaugurated the custom of removing officers without regard to their qualifications for their duties or their behavior.

The assumption and exercise of this arbitrary authority made the public officers in the service of the Nation dependent for their bread and butter on the will of the

executive. Nearly all State officers, from the governor down, held their office, for the most part, for a single year only; the same was the case with municipal officers, including school committee. In some States even the judges of the highest court were elected by the people, to hold office for a short determinate period; and so the office of teacher of public schools, which, in the days of Master Cheever, was held by life tenure, was made to conform to the general custom in respect to tenure of office; and even the clergy, who had always held by life-tenure, began to hold by a limited tenure. He, therefore, must have been not only a bold man, but an unwise one, who, as an educational reformer, should have in those days dreamed of undertaking to render the status of the teacher more desirable by advocating for him a permanent tenure of office. Hence the reformers of those days directed their efforts to other objects.

But an immense change has taken place since that time in public opinion, as well as in legislative provision, respecting the tenure of office of public officials. The civil service reform, to which has been accorded the largest plank in the platform of the dominant political party, is a declaration of the principle that *Justice to servants is essential to good service*, and that justice is incompatible with the tenure of office, which carries with it no ownership or interest on the part of the incumbent.

The essence of the civil service reform consists in its aim to substitute a permanent tenure of office for the short and uncertain tenure; all the rest is incidental. This carries with it appointments and promotions by merit, and not by favoritism. This revolution in public sentiment has made the opportunity to undertake a reform in the status of the teacher by making his tenure

of office permanent. To secure a permanent tenure of office for teachers in the public schools is the next great step to be taken in the interest of the people's schools. In my judgment this is the most important educational reform of our school system that has ever been undertaken. The substitution of the permanent tenure for the present precarious limited tenure would doubtless be regarded by teachers as a great boon, but I am looking more especially to the public welfare, — the public interest is the paramount interest.

The theory which it is my present purpose to propound and advocate is this: Permanency of tenure would enormously increase the desirableness of the teacher's status; that while it costs nothing to the public to grant this permanency, to the teachers it would be an inestimable boon; that, as a means of compensating teachers, it would be equivalent to a vast increase of school revenue; that the salary, even though raised to the highest practicable limit, when subject to the offset of short and precarious tenure, with all its train of evils, is insufficient to bring into the service of teaching, and retain there the requisite teaching talent. In substance, then, the question of permanent tenure for teachers is, in the first place, a question of economy — the question of conservation of forces; that is, the question whether the money compensation of teachers shall be in effect largely supplemented by what costs nothing. In the second place, it is a question of educational results, — for salary plus permanent tenure is the indispensable condition of the ideal teaching corps, and hence the indispensable condition of the ideal school and the ideal education.

The reasoning on which this theory is based is extremely simple, and is the following:

1. Permanency of situation everywhere and always counts largely with the salary in estimating the emolument of the situation, and it is self-evident that these two elements together are greater than one of them alone.

2. The addition of permanency of tenure to salary is necessary to make teaching a career sufficiently attractive for persons of ability and culture, as a life work, and it is only from such persons devoted to teaching as a life work that the best teaching can come.

This reasoning is the plain lesson of history, which he who runs may read. It is well known that the German States, and more especially Prussia, took the lead in the organization and development of the modern system of public instruction. And it appears that in Prussia from the outset the life tenure of office for the teachers was adopted as the first principle of the incipient system; and, in fact, the Prussian law long ago expressly prohibited the appointment of any regular teacher for a determinate period. This was the original stock upon which improvements were from time to time grafted, until at length its present vigor, completeness, and symmetry of development have been produced. Forty years ago Horace Mann thus characterized the teachers produced by this system: "As a body of men their character is more enviable than that of any of the three so-called 'professions.'" In all the other European countries the point of departure and the process of development have been substantially the same. It is safe, I think, to say that in no one of them has it been thought expedient to attempt to carry on a system of schools on the plan of choosing teachers for a short, determinate period.

On the other hand, it seems to have everywhere been taken for granted that there could not be such a thing as

an efficient and economical school system without making provision for securing the services of teachers who should be devoted to the business of instruction as a life profession. Accordingly, we find that, although public school teachers have, perhaps, nowhere received entirely satisfactory treatment, they have generally been secure in their position and in their revenues, all too slender though they may have been. Thus the beginning was made by laying a foundation for a status of dignity and independence. This was all important as the initial provision. The rest followed logically, although not without delays and difficulties. As it is the teacher that gives character to the school, which no well-informed person will deny, so we find that most of the measures of progress and improvement have been such as were calculated to ameliorate the condition and elevate the status of the teacher, to provide better professional training, to improve the scheme of examination and certificating of candidates, to increase the compensation, to secure a more competent and trustworthy superintendence and inspection, to afford the best means of appreciating and rewarding merit. These were the objects always uppermost in the aims and efforts of intelligent promoters of educational progress. And thus by degrees have been created the conditions requisite to render teaching a veritable career; not a career, indeed, leading to wealth and luxury, but a career of assured independence, dignity, and support.

In our country the point of departure and the process of development have been quite different from those we have considered. We have undertaken to develop and build up an efficient system of instruction while acting on the assumption that the teacher cannot be recognized as having a claim to any ownership in a position of service.

In a French report on English schools it is stated as a curious absurdity, that at the annual meeting of the trustees of a certain old endowed school in London the head master is summoned into their presence, and informed that the term of his service is at an end and the mastership vacant. Thereupon, if he desires to be considered a candidate for reëlection he so states, and retires and waits for the result of the ballot. This is a type of the tenure of office of substantially all American public school teachers. Their position is not assured beyond the term of one year. Nor is this the worst condition of their tenure; there is a lower deep yet. In general, the public school teacher may be dismissed within the year for which he is elected by a majority of the school board, the teacher so dismissed having no legal right to a previous notice, a hearing, or appeal to a superior authority. This is the tenure in Massachusetts, and so far as I have been able to ascertain, it is substantially the same in other States.

Mr. Boutwell, in speaking of this in his commentary on the Massachusetts school law, justly remarks, "This power is as nearly absolute as any power in our Government." In point of law, therefore, the American public school teacher holds office securely not even for the short period of one year. His position, salary, and professional standing are absolutely at the mercy of the local committee. A majority of a quorum of the school board, by a secret ballot, may dismiss him without a day's notice, without bringing any charge against him, and the dismissal so made is absolute and final. This tenure may have some slight safeguards in some States, or some individual cities; if so, let them be known and credited therefor. The only exception within my knowledge

worthy of mention is that of the City of New York, where the tenure is permanent, removals being made only for cause. It has been ascertained that in the cities of Brooklyn, Jersey City, and Newark, the tenure is also during efficiency and good behavior. In our system, therefore, there has been provided as yet no solid foundation upon which to build up a desirable status for the teacher; consequently little has been done to environ the teacher's office with the subsidiary guarantees requisite to constitute a career of teaching service. This condition of absolute insecurity and dependence in respect to position is necessarily compensated in some degree by the rate of the salary. In fact, our system, instead of taking permanency of tenure as the point of departure from which to develop a competent teaching corps in accordance with the opinion and practice prevailing in all other enlightened countries, has relied primarily and mainly upon compensation in money as the mainspring in the scheme for securing the desired teaching service.

This peculiarly and distinctively American feature of public instruction is coeval with the modern organization of our school system. It has been on trial for a long time, on an extensive scale and with all sorts of conditions. It is time now to ask, What has been the outcome of this experiment? In reply to this question it may be said, without contradiction, that the American plan of dealing with teachers has not built up a stable and permanent profession of teaching.

The failure of our system of instruction to secure the services of a body of teachers devoted for life to the work was set forth in the remarkable Report on American Education by the French Commission, of which the

eminent educator, M. Buisson, was the president, and contrasted with the success in this respect of the French system. "In France," says the reporter,* "one embraces the career of teaching with the intention of creating for himself a stable and permanent position. Those who abandon it before having obtained their retiring pension form the exception. The young beginner expects to live and die a teacher; and each year of exercise adding to the experience previously acquired, a moment arrives when, possessing a competency of knowledge, both theoretical and practical, he can conduct his school with method, with success, and thus limit the rôle of his superiors to simple encouragement and kindly advice. In the United States it is otherwise. The profession of a teacher would appear to be a sort of stage, where the girl waits for an establishment suited to her taste, and the young man a more lucrative position. For many young persons this temporary profession is the means of procuring the funds for continuing their studies. Few masters count more than four or five years of service, and if instructresses remain longer in the profession it must be remembered that marriage is ordinarily the end of their desires; and that once married, they almost always withdraw from the service."

If this is the correct statement of the case, and that it is, I think will be generally agreed, then our system has failed to create a stable, permanent profession of teaching; while such a profession has been created not only by the French system, but by the systems of all other enlightened countries except our own. My inference is that the failure of our system in this vital particular is owing to the short and precarious tenure of office

* Monsieur B. Berger, Inspector General and Director of National Pedagogical Museum.

of the teacher. No argument is needed to prove that, other things being equal, teaching as a career, as a life-work, yields vastly better results than teaching as a temporary occupation.

I would not be understood, however, to admit for a moment that our system of free schools, as a whole, has been a failure; on the contrary, it has been a great success, whatever may be said in its disparagement from ignorance or bad intent. The last thought given to the world by Barnas Sears, than whom no higher authority on the subject can be cited, bore on this point, and was expressed in the following words: "If the old district school in New England, imperfect as it was, bore good fruit, which none deny, the modern system, with its manifold improvements, has borne them much more abundantly; and yet we have not reached the goal for which we are striving." This is the testimony of a wise and true reformer, ripe in wisdom and experience, who recognized and defended acquisitions already won while earnestly striving for still further advancement.

The goal for which we are all confessedly striving is the most economical and efficient system of instruction, and the history of education proves that the best results in instruction are produced only where teaching is pursued as a career for life; and, second, it teaches also that permanency of tenure is essential as a means of rendering teaching a desirable career.

To render the permanent tenure effectual it must be accompanied by a permanent, that is, an irreducible salary, as control of salary is virtually control of tenure.

We know what the objector to this plan will say: Your permanent tenure, with its irreducible salary, constitutes without doubt a desirable status for the teacher.

providing the rate of salary is not too low. Whatever other tribulations may await the teacher, he has no longer any risks to run ; he has no longer to submit to an annual humiliation in the shape of an annual election ; his reputation and his living are no longer at the mercy of incompetent and prejudiced school officers. His status is invested with dignity and independence ; he can hold up his head like a man, and look the whole world in the face. But in all this what have we done but shift the risk from the employe to the employer, from the teacher to the public ; you have insured the teacher against risk, but what guaranty has the public that the teacher will do his duty when he has no longer the fear of losing his situation, to act as a spurr to effort. Are not the annual election and the power of summary dismissal necessary means of stimulating teachers to vigorous and sustained effort, and of removing those who are delinquent and incompetent ; and, besides, is not this permanency of tenure contrary to the spirit of our free institutions, and too un-American to find favor with us ?

To this question, which embodies the substance of all that can be said in favor of annual election, and the power of summary dismissal, I reply : First, that the precarious tenure has not been found necessary for the end in view in any other enlightened country on the globe ; and, second, in our own country, the annual election is unknown in universities, colleges, and the higher educational institutions, generally, outside of the public-school system, so that this odious annual election has no place in the civilized world except the public schools of the United States. But we do not deny that the public should be guaranteed against risk as well as the teacher. In the adjustment of compensation and service the relation of risks must always

be taken into account. In this case the guaranty of the public against risk is perfectly feasible, as experience has satisfactorily proved. This guaranty consists of six distinct provisions :

1. A thorough professional training of teachers in normal schools suited to their destined functions. This is necessary as the primary guaranty against the appointment of teachers without the requisite qualifications. And it is evident that the State could afford a more liberal expenditure for the education of a teacher who is to serve the public thirty or forty years than for the teacher who is to serve only three or four years. Only a small fraction of the teachers now engaged in the service are graduates of normal schools, there being no one State that has not recoiled before the task of securing to the whole body of teachers a professional education, and this is because of the very great number of teachers which teaching as a temporary employment necessitates.

2. Another guaranty should be provided by a system of examining and certificating teachers by experts wholly under the control of the central authorities ; and, besides, the local certificate, the only one, with few exceptions, now issued, does little for the establishment of the standing and reputation of the holder. But a certificate granted by the central authority, and valid throughout the State, would create a professional rank and standing which would elevate the status of the holders.*

3. As a third condition requisite to the permanent tenure, probationary service must be provided. The candidate must not only have his certificate, but he must prove his capacity by actual service in teaching, before he

* Provision has been made for State Certificates in a few of the States.

can claim a definitive appointment. The period of probation should not be less than two years; and it might well be three or four. The judgment on the result should be rendered by one or more approved experts. If a further guaranty against failure is deemed expedient it may be obtained by an examination at the end of the probation, bearing especially on the practical work of the school-room.

4. As to the choice to be made among candidates thus prepared, the most judicious method appears to be for the superior school authority to nominate three or four candidates, having regard both to seniority and merit, and that the election from this list should be left to the local committee.

5. Provision for a suitable hierarchical situation for the teacher. Such a situation would comprise a competent supervision and the other means requisite for stimulating the teacher to the best efforts, by recognizing his worth and rewarding his merits; and such a situation would also comprise the necessary machinery for administering just and salutary discipline in cases of delinquency. In France the hierarchical situation is so well contrived that the young man of talents, entering upon his career as primary teacher in the remotest mountain hamlet, may hope to reach, by well-earned promotions, the principalship of a metropolitan school, or to become director of a normal school, or even inspector.

"It is the function of a good administration," says the eminent Belgian publicist and educator, De Laveleye, "to seek by fixed rules which science indicates to ascertain merit, and to class individuals according to their aptitudes; then there would be an end of solicitations, of subserviency, of intrigues, of protections, of favors, of injustices." And this is the paradise for which the teacher prays.

He wants to feel that he owes his position to his merit, and not to favor, and to be sure that his efforts will be appreciated and recompensed. It is perhaps in vain to hope that the public school teacher's path may be strewn with roses, but hitherto it has been too much hedged up with briars and thorns; but the supreme misery of his lot is to be judged by incompetents. This would necessarily be mitigated by the better supervision which the permanent tenure would require.

6. A retiring pension is requisite not only as a security for old age, but as a means of rendering practicable the retirement of the aged and fatigued public servant, without reflecting on his reputation or abandoning him to destitution.

These six conditions are logically involved in the full and complete application of the principle of fixity of tenure. Moreover, they are at the same time the means of producing an equilibrium of risks and of authorities, which experience has proved to be indispensable to the most efficient, economical, and harmonious working of a school system.

In every point of view this reform in our system seems to me fundamental in its importance; all others are but secondary, subordinate, accessory. It may seem to the timid to be a bold undertaking, but it is not more bold in the present circumstances than was the project of State normal schools, or the project of a State Board of Education fifty years ago. Every epoch has its peculiar task. This reform I verily believe to be the task of the hour for the friends of educational progress. Public sentiment is now everywhere drifting in this direction. In the powerful movement which has been begun to reform the civil service, I plainly see the dawning of a new and

better day for the public school and the public school teacher. The press is daily teeming with arguments for our cause; for the principles of a good civil service are essentially the same as the principles of a good educational service. Hence the achievement of the civil service reform will prepare the way for this reform. The spoils system and the annual election are twin barbarisms, and with the abolition of the former the latter must go.

But permanent tenure is not to be brought into successful operation by a single legislative act. This radical reform must be reached by a series of steps. Initiatory steps have already been taken in various quarters. It is worthy of mention that, at the late session of the Massachusetts Legislature, the chairman of the Committee on Public Service offered to include the teaching service in the provision of the civil service reform bill reported by his committee. This reform must begin practically in the cities and larger towns. Teachers have their duty in connection with this task. Everywhere they should pour in their petitions and memorials upon the legislatures, throughout the country, and do their share of the work in creating public opinion which shall demand this reform.

XV.

MANIFEST DESTINY.

The Destiny of the English Race of America and of the World.

BY JOHN FISKE, LL.D.

[ABSTRACT.]

The manifest destiny of the Anglo-Saxon race is a fruitful theme for many Fourth-of-July orations, but there is also a philosophical and historical side to this interesting question. I would, however, prefer to call it the race, English; for, like the Englishman of England, the American may have absorbed many foreign elements, but is as essentially English to-day in political habits and aptitudes as were his ancestors in the days of DeMontfort, Hampden, or Washington.

Looking first at civilization, we may premise that it means primarily the gradual substitution of a state of peace for a state of war. This change is the condition precedent for all other kinds of improvement that are connected by such a term as "civilization." The next step is the union of small political groups into larger groups for common protection, without sacrificing local independence. But, in order that the pacific community may be able to go on doing its work, it must be strong enough to overcome quarrelsome or barbarous neighbors. Hence the most pacific communities should have the greatest military strength, — peace obtainable only through war

This point has been slowly gained, and much of the murderous warfare of the past was necessary for future civilization. But all this prodigious slaughtering made the problem of pacific life more difficult. The turbulence constantly prevented closely coherent communities from being formed; endangered the people's liberties; gave ever-recurring opportunities for one-man power; or led to the ever-fatal tendency of despotically governing conquered or dependent people. Thus succumbed Greek and Roman, and so in later days all Europe. But what of England? Its strategic position saved it. It was never necessary to keep a great standing army; its navy was all-sufficient: a navy could defend, but could not oppress the nation. The nation's normal political development, though checked, could still go onward. In England, and England alone, the free government of the primitive Aryans has, to this day, been uninterruptedly maintained. Everywhere else it has been impaired or lost.

Recognizing this advantage, we can see the significance of the stupendous expansion of the English race, which first became possible through the discovery and settlement of North America, one of the most prodigious events in the political annals of mankind. Mark the epoch! It was the time of the great struggle between Protestantism and Asiaticism, whether the Aryan race should go on in its progress, or sink into the barren and monotonous way of living and thinking which has always distinguished the half-civilized populations of Asia, Holland and England on the one side; Spain and the Pope on the other. In Europe there were varying successes. But vast America came upon the field. The race which here should gain the victory was clearly destined to lead the world. The colonies would inevita-

bly rival the State that planted them. Their political influence would overshadow all. It was not until the American Revolution that this began to be dimly realized by a few prescient thinkers. Even now it has an air of novelty. But, when the highly civilized community, representing the ripest political ideas of England, was planted in America, removed from the manifold checks of the old world, its growth was rapid and steady. There was now no occasion for a military aspect. Principles of self-government were at once put into operation; no one thought of calling them into question. When the neighboring civilization of inferior type, — the French in Canada, — became seriously troublesome, it was struck down at a blow. When ignorant king and short-sighted ministers attempted to enforce on the new communities their antiquated theories, the political bond with the mother-country was severed. But it was no war between different peoples of antagonistic theories and policies. Like the war of the barons, it was a war for principles dear to all.

From that date the astonished world saw two Englands prepared to work with might and main for the political regeneration of mankind. What can be the outcome of this increase of the English race in America? Obviously the multiplication of an orderly and industrious people must make for order and industry. What, then, are our possibilities? The United States, if half as dense as Belgium, would hold fifteen hundred millions. It used to be said that so large a people as this could not be kept together as a single national aggregate; or, if kept together at all, could only be so by means of a powerfully centralized government like Rome under the emperors. Strange mistake. If the Roman Empire could have possessed

that political vitality in all its parts which is secured to the United States by the principles of equal representation and of limited State sovereignty, it might well have defied all the shocks which barbarism directed against it. As it was, its strong centralized government did not save it from political disintegration. Its political weakness was that it was a close corporation governing a score of provinces in its own interest rather than in the interest of the provincials. In contrast with such a system as that of the Roman Empire, the skilfully elaborated American system of federalism appears as one of the most important contributions that the English race has made to the general work of civilization.

And here we may see the *réal* issue in our late civil war; not the emancipation of the negro, priceless gain as it was, but the more weighty question, whether this great pacific principle of union joined with independence should be overthrown by the first deep-seated social difficulty it had to encounter, or should stand as an example of priceless value to other ages and to other lands. The solution was worthy the effort, for it was an earnest of peace for the world. It dispensed with future fortresses and vast armies. It demonstrated that a pacific people can yet be strongly military; can raise vast armies and as quickly return them to their plowshares; can conquer a territory and yet re-admit its people to voluntary citizenship. Such has been the result of the first attempt to break up the Federal Union. It is not probable that another attempt can ever be made with anything like an equal chance of success. It was a defeat that wrought conviction, — a conviction that, no matter how grave the future political questions, they must hereafter be settled in accordance with the Constitution.

It is the thoroughness of this conviction that has so greatly facilitated the reinstatement of the revolted States in their old relations. And now, with this federal principle unimpaired, there is no reason why any further increase of territory or of population should overtask the resources of our Government. In the United States of America, a century hence, we shall doubtless have a political aggregation immeasurably surpassing in power and in dimensions any empire that has yet existed. But look for a moment at the probable future career of the English race in other parts of the world. No one can carefully watch what is going on in Africa to-day without recognizing it as the same sort of thing which was going on in North America in the seventeenth century, and it cannot fail to bring forth similar results in course of time. Australia, two-thirds the area of the United States, has already five greatly thriving States of English people. Its Melbourne, but forty-three years old, has a population of quarter of a million. New Zealand is only rivaled by Texas and Minnesota in its rate of increase.

Look, again, at such works in the English language as are being issued by Prof. Hearn of Melbourne, Bishop Colenso of Natal, and Hubert Bancroft of San Francisco. Even such a little commonplace fact as this is fraught with wonderful significance when we think of all it implies. It points to the conclusion that the work which the English race began when it colonized North America is destined to go on until every land on the earth's surface that is not already the seat of an old civilization shall become English in its language, religion, habits, and traditions. The day is at hand when four-fifths of the human race will trace its pedigree to English forefathers. The race thus spread over both hemispheres, and from

the rising to the setting sun, will not fail to keep that sovereignty of the sea and that commercial supremacy which it began to acquire when England first stretched its arm across the Atlantic to the shores of Virginia and Massachusetts.

In view of these considerations as to the stupendous future of the English race, does it not seem very probable that in due course of time Europe, — which has already learned some valuable lessons from America, — will also find it worth while to adopt the lesson of federalism in order to do away with the chances of useless warfare? In fact, is it too much to hope that by-and-by we may eventually put public warfare entirely under the ban? The gradual concentration of physical power into the hands of the most pacific communities and the sharp competition of commerce are potent factors to this end. As this process goes on, it may possibly, after many ages of political experience, become apparent that there is really no reason in the nature of things why the whole of mankind should not constitute politically one huge federation, each little group managing its local affairs in entire independence, but relegating all questions of international interest to the decision of one central tribunal, supported by the public opinion of the entire human race. I believe that the time will come when such a state of things will exist upon earth, when it will be possible to speak of the United States as stretching from pole to pole, — or, with Tennyson, to celebrate the “parliament of man and the federation of the world.”

REPORT
OF THE
NECROLOGY COMMITTEE
OF THE
AMERICAN INSTITUTE OF INSTRUCTION
FOR 1884.

We have special cause for gratitude that so few of our membership have been called from earthly scenes since our last annual meeting—the number being the smallest of any year since 1877. In the six years previous to the present, we had occasion to report the names of forty-one of our number, being an annual average of nearly seven, while at this time we have only two.

JOSIAH ATHERTON STEARNS.

Josiah Atherton Stearns was born in Bedford, Mass., in 1811, and died at Boston Highlands on the 8th of September, 1883, at the age of seventy-one years. After receiving such instruction as was afforded by the common schools of that day he pursued a course of study in the then celebrated Teachers' Seminary at Andover, Mass., after which he taught common district schools for two or three years with great success. He then for several years engaged in the publishing and book-selling business in Boston. In 1842 he resumed teaching, and entered upon a long and highly successful career as an instructor in the schools of Boston—a continued service for forty years. He commenced as teacher in the Adams School, from which he was promoted to the mastership of the Mather School, and later to that of the Norcross School, of which he was the first principal. Here he remained discharging his duties to the great acceptance of the committee and patrons until 1882, when the need of rest and the approach of the disabilities

of advancing years induced him to resign his position and retire from teaching. On accepting his resignation the School Committee of Boston passed resolutions expressive of their appreciation of his service in terms highly complimentary. These were ordered to be engrossed and elegantly framed and presented to the retiring teacher.

Mr. Stearns was a noble specimen of a Christian gentleman. He was not only a faithful, devoted, and successful teacher, but he was a man whose influence for good was felt in the community. He was ever ready to do his part in all efforts for promoting the great interests of education, and while in word and deed he honored his chosen vocation, he was greatly respected and beloved by all who knew him. He was one of the earliest members of this Association, having become a member in 1832. In 1845, when the teachers of Massachusetts assembled at Worcester to form a State Association, Mr. Stearns called the meeting to order, and for several successive years he was the Treasurer of the Association, and in 1854 its President. He received the honorary degree of Master of Arts from Harvard University and that of Doctor of Philosophy from the University of Nashville, Tennessee. Mr. Stearns was the son of the late Rev. Samuel Stearns of Bedford, Mass., and his remains were followed to their burial in that town by a large number of friends. He was one of four brothers who have occupied positions of high honor and influence in life. The late Rev. Wm. A. Stearns, D. D., LL. D., was for several years the honored President of Amherst College; the Rev. Jonathan Stearns, D. D., is an eminent clergyman in Newark, N. J., while the youngest of the four, Eben S. Stearns, D. D., is now the respected and efficient President of the University of Nashville, Tenn.

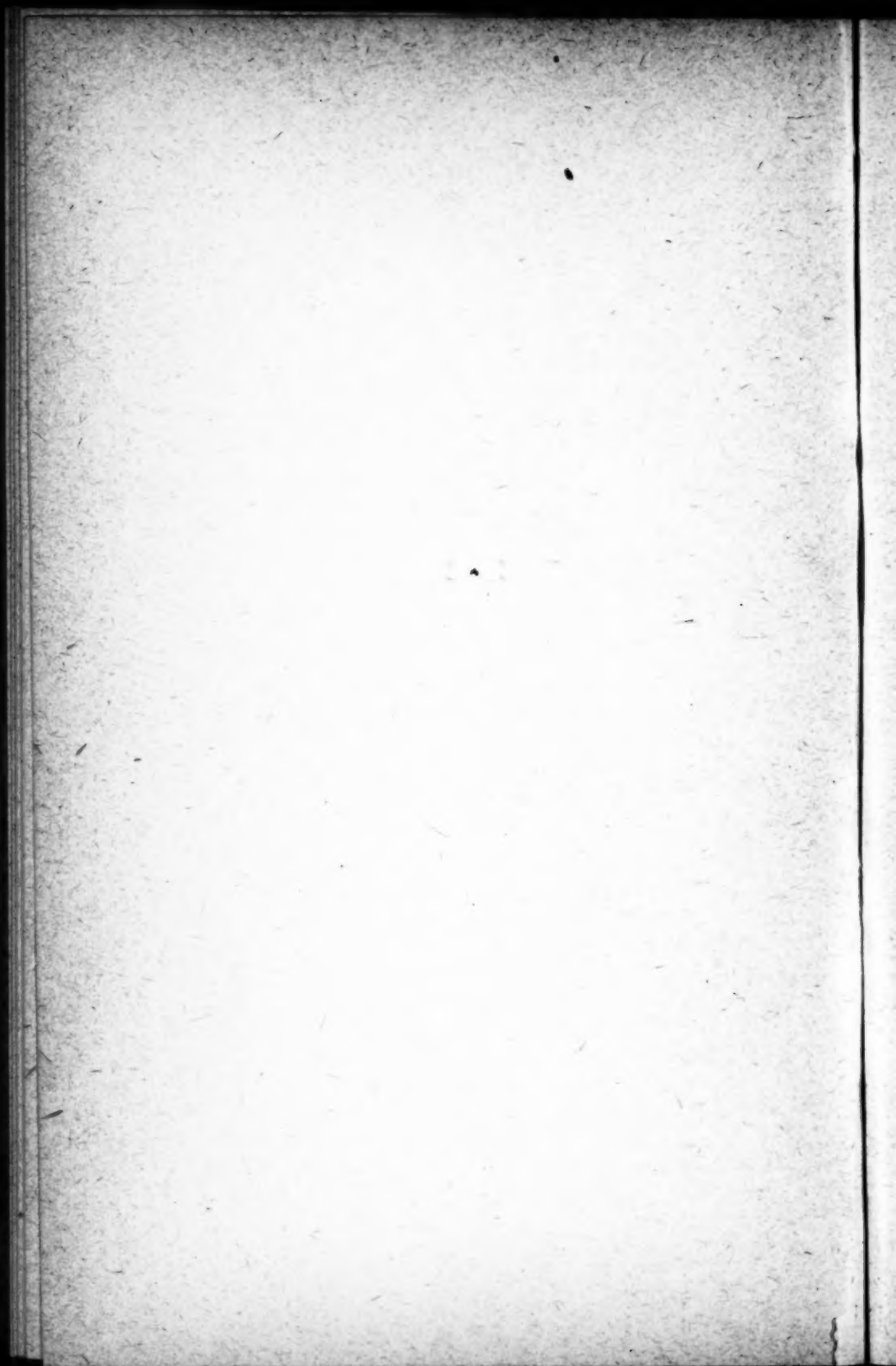
ISAAC FOOTE CADY.

Isaac Foote Cady was born in Monson, Mass., on the 10th of October, 1818, and died in Barrington, R. I., on the 28th of April, 1884. His earliest school days were passed in the District School, but his preparatory Collegiate course was pursued at Monson Academy under the excellent teacher and noble Christian gentleman, the late Charles Hammond, from whom he received impressions of an ennobling and elevating character which

were felt for good during his entire subsequent life. Elbridge Smith, an eminent teacher now of Dorchester, bears this strong testimony to Mr. Cady as he knew him when a student. "On leaving college in 1841, I became tutor, and in the first class that came under my care was a young man of superior character and scholarship who had evidently come to college with aims quite different from those of many who were found there. Possessed of good native talent he had somewhere learned to respect himself and become inspired with an earnest zeal in the pursuit of knowledge. That young man was Isaac F Cady, then of Monson, Mass.

On graduating from college, Mr. Cady commenced teaching in Wethersfield, Conn., and after a year in that town, he removed to Providence and became teacher in the Providence High School where he remained until 1848, when he accepted the mastership of the High School in Warren, R. I. Here for twenty years he did excellent work, and will long be remembered as a valuable citizen as well as a faithful teacher. After resigning at Warren he went to Georgia, and for one year had charge of Chatham Academy at Savannah. Much to the regret of the patrons of the school he declined to remain longer, being unwilling to remove his family to a slave-holding state. In 1870, Mr. Cady removed to Barrington, R. I., and opened a boarding school and day school which he continued with good success for about ten years, when impaired health compelled him to abandon teaching. After this he took a very active part in establishing a Free Public Library in Barrington. He was elected one of the trustees, and also became Secretary and Librarian—the duties of which, with the assistance of his youngest daughter, he performed till his decease. Mr. Cady was a frequent contributor to educational periodicals, and took an active interest in educational work, often lecturing at institutes and educational meetings. Being a true man and Christian, he was instrumental in training many youths to true manhood and lives of honor and usefulness—who are now widely scattered, but diffusing in their respective locations the spirit and influences of their teacher—blessing and being blessed. Mr. Cady became a member of this Institute in 1853.

CHARLES NORTHEED,
Chairman of Committee.



PRIZE ESSAY;

AWARD OF THE AMERICAN INSTITUTE OF INSTRUCTION

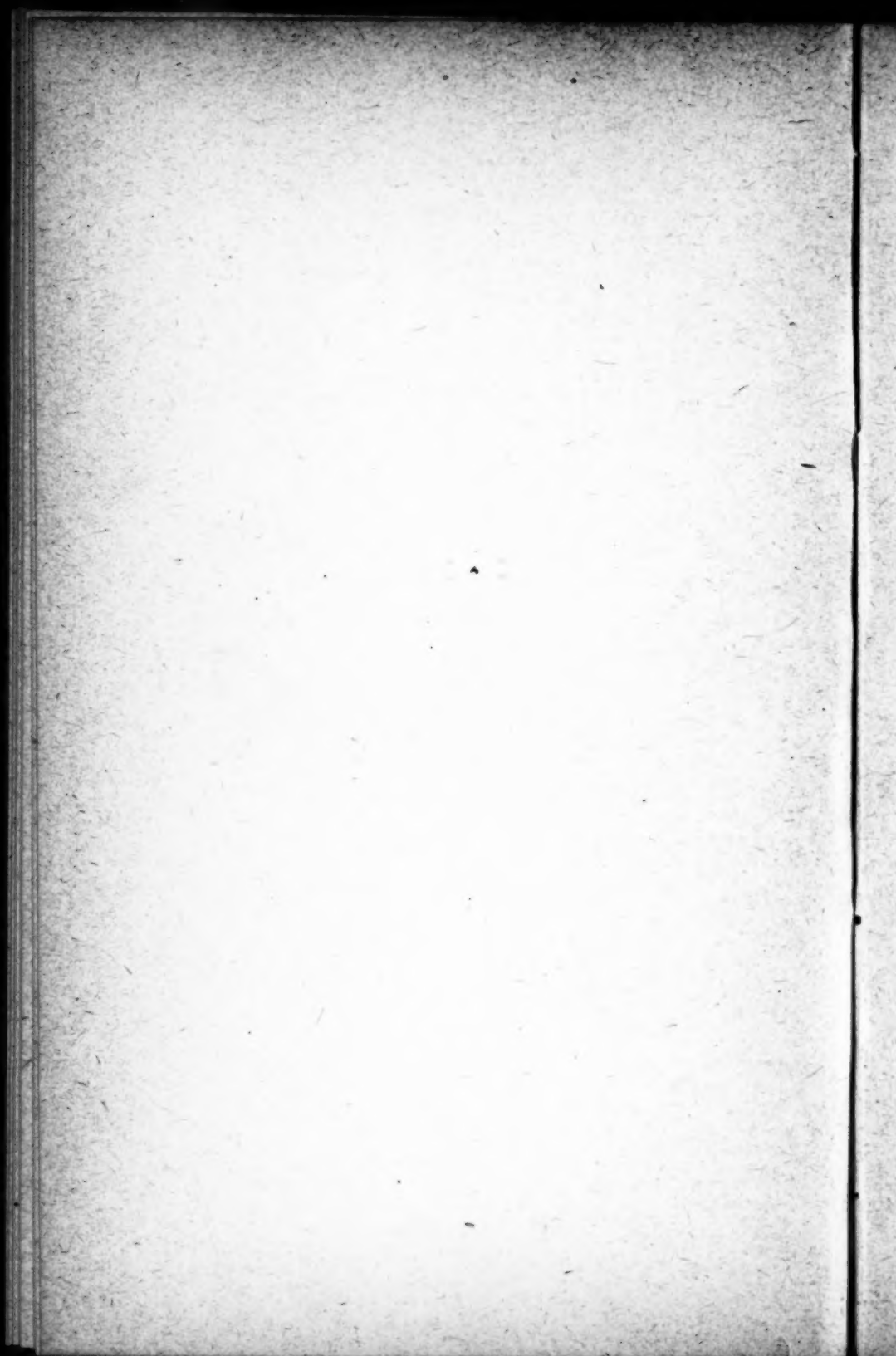
THE
NEW EDUCATION;

ITS ORIGIN, HISTORY, PRINCIPLES,
METHODS, AND RESULTS.

By WILLIAM MORTON PAYNE.

Published by order of the Board of Directors.

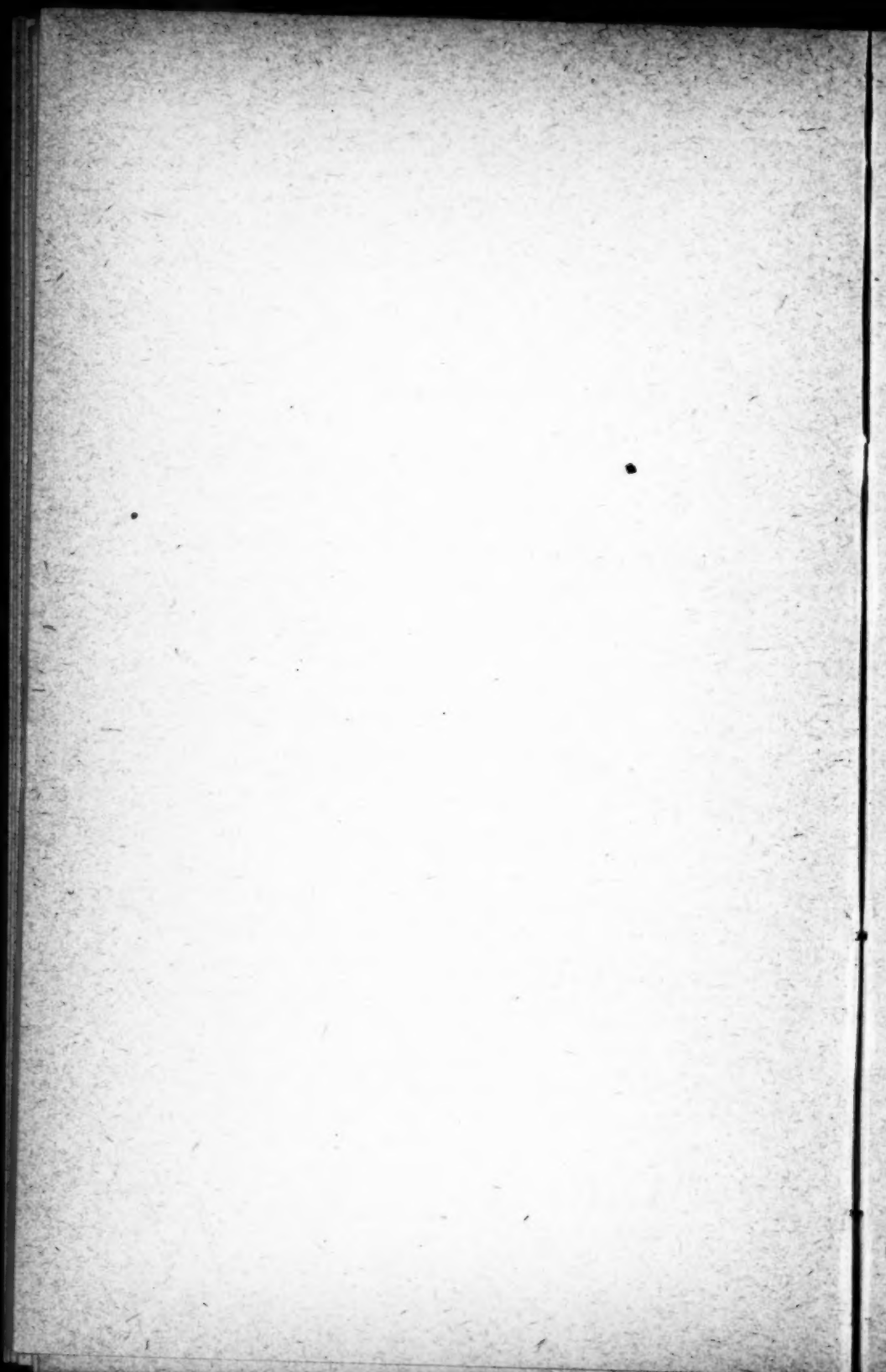
BOSTON:
WILLARD SMALL,
1884.



PREFACE.

The American Institute of Instruction, through the Trustees of the Bicknell Fund, offered the income of that fund for the year 1884, to the writer of the best essay on "The New Education; its Origin, History, Principles, Methods and Results." Numerous essays were received, many of considerable merit, but to the following essay by Mr. W. M. Payne, the committee made the award with entire unanimity.

BOSTON, 1884.



THE NEW EDUCATION.

We hear a great deal said just at present about the "New Education," and the expression is one which is likely to mislead those who are unfamiliar with educational history, past and present. We have had, of late years, a new chemistry and a new biology, which are indeed such, but it is much to be questioned if we have anything that may be called a new education in the same sense. In chemistry, the application of the law of Avogadro and the developement of the doctrine of quantivalence have so altered the face of the science as to make it in fact a new one; and in biology, the enunciation and application of the law of developement has indeed worked a mighty revolution, but if we turn to educational science we shall find nothing at all comparable with these metamorphoses. The whole history of education seems in truth, dull and commonplace as compared with the brilliant history of most other departments of science, in its lack of those striking discoveries which, like the statement of the laws of planetary motion by Kepler, and the discovery of the relationship between the languages of the Aryan family, lend a sort of dramatic interest to the history of such sciences as astronomy and philology.

We do not mean to say, however, that in the science of education there has not been a marked degree of

progress during these years which have witnessed so astonishing a developement in so many other departments of knowledge ; what we wish to emphasize is, that such reforms as have been accomplished have been brought about with comparatively little stir, that they have been the gradual and sure triumphs of common sense rather than of new theories and hitherto undiscovered principles.

Whatever the new education may be, the ceremonies attending its inauguration have been of a prosaic character as compared with those which have accompanied the new departures which we have seen taken in most other branches of science. Having then at the outset guarded against the misconception which might otherwise be conveyed by the statement of our subject, we must also guard against that other misconception which would assume that a new education must deal with new matter. This may indeed be the case, but it is not necessary that it should be so. What it must have is new methods ; new matter is purely incidental. From the fact that the past twenty or thirty years have witnessed a great change in the subjects taught, it does not follow that there has arisen a new education in the sense in which the expression is here used. It is also important in this connection to make sharply the distinction between the science and the art of education, and carefully to define each of these. Regarded as a science, education occupies a minor place. It is not one of the great fundamental sciences, but merely a branch of one of them. It is simply that department of psychology which deals with the developement of the faculties. No knowledge of education as a science can be worth anything unless it is accompanied by an intimate acquaint-

tance with the whole field of psychology ; but for all that, educational science has a distinctly circumscribed region of its own. Education as an art consists in the practical application of the principles of the science, and is open to almost any degree of developement, whereas the principles of psychology and those of educational science included, have been in the main long since determined, and are not likely to suffer any considerable alteration. Obviously, then, the new education owes whatever novelty it may possess rather to improved applications of accepted principles, than to the enunciation of new principles. This would be a new psychology rather than a new education.

Our first object will be, then, to inquire if there has been recently any improvement in educational methods so marked as really to constitute an epoch in the history of education. If we were to make a comparison between the work of some school which should be selected as typical of the more progressive schools of the present day, and that of one fifty or even twenty-five years ago, likewise typical of the better educational art of its time, we should find a very marked difference, both in methods and results. In place of the rigid formality which characterized the work of the one, we should find in the other a greater freedom, and less of constraint in the relations of instructor and instructed. Instead of the brutal compulsion which once prevailed, we should find in operation as incentives to good work, those motives which spring from sympathetic relations between pupil and teacher, and from a spirit of generous emulation. In the manner of presenting subjects to the young mind, we should find an endeavor to awaken interest, almost wholly wanting in the past, and associated

with this an ingenuity in approaching a difficult topic, and a fertility of invention when it is once entered upon, of which earlier education knew but little. In the treatment of the subject taken up we should discern a relatively much larger use of things than of words as compared with the older way of treatment, a more frequent and direct appeal to the senses as the source of all knowledge, and a consequently diminished amount of taxation of the merely verbal memory; most important of all, perhaps, we should find an instinctive if not explicit recognition of the unconscious factor in mental growth, and for this we should search well nigh in vain in the best educational work of years not very remote. As the result of all this we should find exhibited by the minds thus operated upon, a broader, freer growth; greater plasticity at an age when plasticity is above all things else desirable, as well as natural; a well-rooted knowledge of the more obvious natural and social relations. The difference, we repeat, would be a marked one, and yet were we to attempt to assign to the improvement which has undoubtedly been made any distinct period from which it should date, we should find ourselves involved in much difficulty. There is nothing new in the principles involved; we may find them all in Milton and Locke, in Comenius and Pestalozzi, in Montaigne and Rousseau, and whenever a man of broad culture and sound notions on psychology has devoted his energies to the practise of the educational art, he has been quick to see and put into effect these fundamental principles of the science. Some men, such as Dr. Arnold in England, and Horace Mann in this country have become, both by virtue of unusual ability and on account of favorable conditions, particularly prominent as expo-

nents of rational methods of instruction, but no one of these has exercised an influence so great and so widespread as to justify the choice of his work as determining the beginning of a new epoch. What these have done in the eyes of the world has been done simultaneously in lesser spheres by hundreds of devoted teachers.

That the use of improved methods has become so rapidly widespread is rather to be attributed to the great increase in means of communication and in educational facilities, to the general progressive tendency of the age, and to the leavening effect upon all classes of society of that widening of the field of knowledge and that throwing open of new avenues of thought which so marks our age. This may be compared to a vast tidal movement, of which individual waves may be due to the impulses of individual workers, but which, as a whole, is greater than any of its parts, and cannot, as a whole, be ascribed to any man or group of men. The origin of what is called the new education is not then to be sought as a thing of fixed date, and its history is rather that of the gradual displacement of irrational but time-honored methods by the application of rational principles, whose patient, persistent self-assertion is sure to tell eventually. Like some old Rhine castle, the mass of conservative educational tradition, itself also a relic of the middle ages, has been dismantled, and is fast crumbling away, beneath the slow but resistless action of natural forces.

Having thus been at some pains to make clear what is to be understood by the new education, and to what extent the term is a misnomer, it may be well at this point distinctly to define the sense in which the somewhat unfortunate expression will hereafter be used.

Here, as has often been the case elsewhere, an ill-chosen expression has become so current that we cannot well discard it, and the only resource is to state clearly what it may mean and what it may not mean. The history of education shows that it does not mean the discovery, within recent years, of any revolutionary principles, or indeed of any new ones of striking importance. There is then left for it to comprehend the wider view which is now taken of education than in the past, the more rigorous application of psychological principles, with the consequent falling into disuse of methods sanctioned only by time, and the fertility of invention which has enriched, in a well-nigh incalculable degree, every department of education, with new methods resulting from the practical application of sound principles, and well-tested as to their efficacy by experience.

The fundamental principles of the new education have already been alluded to. Its general aim may be said to be the production of a sound mind in a sound body, a symmetrical development of the mental and physical powers. It aims to work from within rather than from without, making of education a process of evolution rather than of simple accretion. It makes the general assumption that education is healthy growth; that the activities which it involves are normal and pleasurable. It strives to enlist on its side the emotional forces of the child's nature, so potent for good or for evil; it strives even to transform surplus emotional energy into intellectual activity. It seeks to attain a just balance between those pursuits which make demands upon special faculties. In the order of its presentation of subjects it endeavors to conform to the natural order of development of the mental faculties, adjusting to each at each stage

of its growth no burden that may not easily be borne. In the manner of its presentation of subjects it endeavors to reproduce something of the experience of the race ; enough of this firmly to ground the knowledge of the more important generalizations at which men have arrived without putting a clog to the feet by a too rigid adherence to this method, and consequent neglect of the opportunity largely to avail itself of the laboriously achieved results of past application whereby to rise to higher things. It appears, then, that concerning the origin, history and principles of the new education, there is not much to say. Its origin is obscure, its history uneventful, and its principles have long been enunciated. Turning now to its methods, we find that there is a great deal to say, for upon the increased variety and efficacy of its methods is based what claim it has to the name which it bears. Here the field is so wide that we shall have to subdivide it at the outset and make each of the classes of things taught the subject of special consideration.

The first question that the new education puts with regard to any class of studies is this : what can such studies do for the mind ; and the answer being clearly stated, it then asks in what manner this result may best be accomplished. We will proceed to ask these questions with regard to each of the classes of subjects which are ordinarily taken up for the purposes of instruction, and to answer the questions thus propounded in the light of the new education. First of all, let us consider the mechanical acquirements which form so large a part of education, even in the narrower sense, and which include not only reading and writing, but singing and drawing as well, to say nothing of that training in the

use of tools, the importance of which is now so largely urged. The extent to which this kind of work should enter into an education, is the first thing to be considered. Reading and writing are of course, of prime necessity; singing and drawing are coming to be recognized as of almost equal importance at a somewhat more advanced stage; the value of the ability to use tools is the theme of much excited discussion at present; in a general way, the claim of physical education of one sort or another, to occupy a large share of the time given to education as a whole, is coming to be more and more forcibly asserted. This claim is based upon an emphatic presentation of the importance of the part which these mechanical acquirements play in life; it maintains that the hand, no less than the head, should be the object of training. Throughout this discussion we are, of course, using the term education in the sense of conscious, systematic effort for the development of the faculties, pursued in, or in connection with the school, and consequently excluding much which is of the highest educational importance, but which comes within the province of the parent rather than of the teacher. We must, then, be careful closely to scrutinize the claim of physical education for recognition in education as thus narrowly conceived, and fix upon some canons of criticism by which its position shall be clearly defined. What this claim is we have seen. Its importance is admitted at all hands. The question is this: is it more important, all things considered, than that which its extended introduction would tend to displace? The question is also this: what limit shall we put to it, to what extent shall we allow it to invade our schools?

The first of these questions, to be fully answered,

must be answered for each individual case that may arise. In a general way, it may still be said that the physical aptitudes of an individual stand a better chance of developement under those external influences which we do not here take into account, than the intellectual ones ; and that since school education cannot do everything that may be done, it is best that it should confine itself as fully as possible to that which it alone is likely to do well. To the second question a sort of negative answer may be given. Physical education which has about it no intellectual element or association has no place in our schools, except as incidental to the legitimate work. On the other hand, the claim of any kind of physical education which shall involve in the practise intellectual effort, or which in its practise shall be closely associated with intellectual activity, may be considered, and accepted or rejected on grounds of expediency. Swimming and dancing and riding are important parts of education, but they have about them no intellectual element and the school cannot undertake to teach them. On the other hand, the ability to use tools is something more than mechanical ; it involves mental application as well, and the question as to whether we should seek to develop this ability is one of those which the new education tries to answer. The new education is, on the whole, inclined to favor the association of hand and head, both by the encouragement of what is called "practical work" in those departments of study which admit of it, and by giving a larger place to the mechanical acquirements than has been accorded them heretofore. Let us now consider the pursuits of this class more in detail, and concern ourselves with questions of method more largely than we have yet done.

Reading and writing stand first upon the list, and to these we will first turn our attention. It is perhaps, in the matter of reading, that the new education has made greater progress than in any other direction. It is, indeed, hard to restrain one's indignation at the thought that this exercise should so long have been, and should still be a means of cramping the mind and of inspiring a deep-seated dislike of intellectual pursuits, when it might so easily be made a delight in itself as well as a potent means of revealing new and unseen pleasures. The confinement of the child's attention to the contents of the "reader," so largely worthless, forcing him wearily to peruse, over and over again, the pages which he already knows by heart, when such books as the Arabian Nights and the Tanglewood Tales are waiting to be read; this has much to answer for. Among other things it has to answer for the fact that the ability to read well and expressively is one of the rarest of accomplishments, even among educated persons, and it has also to answer for the existence of that abomination which is known as elocution, a thing that simply could not exist in a community whose members knew how to read, and a thing which does not exist in such countries as Germany and France, a thing which finds in their languages no word to designate it.

Now the new education sets itself to do away with this state of things, and it works by introducing into the reading of children a variety hitherto but little known, and an intelligent choice of matter which shall above all things else be interesting. And it assumes that there is abundance of matter that is not only interesting, but good, well worth reading, and of a nature to excite in the young mind an interest in general reading. In the

earlier years it makes its appeal chiefly to the imagination, then so active, by means of well-selected stories, and especially such stories as the Arabian Nights, the Greek hero stories, and the German popular tales which are an unconscious embodiment of so much of the wisdom of a race, and whose vitality testifies to their inherent truth and beauty. In later years, and as the other faculties become more fully developed, it furnishes material fitted to stimulate their healthy growth, and by all the means in its power gives encouragement to the taste for reading *per se*, allowing even much latitude for the exercise of individual taste, with the conviction that a fondness for reading is in itself a good thing, and will with little outside direction work out for itself a literary taste as high as it is possible for the individual in question to acquire. It does not frown upon the child who is found surreptitiously reading Robinson Crusoe in school, nor does it confiscate the book. It may, indeed, point out to him that there is a time and place for everything, and that the school-hours are not the time and the school not the place for such reading, but it will be careful to give the impression that the wrong is not in the reading, which in itself is to be praised, but in the neglect of other duties for it. It will, in short, deal much more gently with the child who is thus found well employed, although neglecting his school duties, than with the one who neglects them that he may make mischief instead. The new education, in its endeavor to create a taste for literature, finds a valuable auxiliary in the public libraries which form so characteristic a feature of the educational system of our country; one whose aid has already been invoked to a considerable extent, and which may perhaps be of service to an

extent yet undreamed of when the school and the library shall have been brought into closer relations than at present.

With regard to writing considered simply as a mechanical acquirement, there is little to be said. To learn to write well requires a certain amount of persistent practice, and it is difficult to conceive of any means by which the labor is to be lessened. As to drawing, its value is becoming more and more fully recognized, and it is fast taking a place as next in importance to writing, and, as the need of it becomes more widely felt, its old rigid methods are giving place to others better in harmony with its more extended scope. Singing has not the universal importance of drawing, but it is perhaps coming to be felt that the facility in reading music which comes from the use of the *sol fa* method is dearly bought at cost of the ability to recognize absolute pitch.

Of other mechanical acquirements we need not speak further here, merely adding to what has already been said, that the more favorable light in which they have come to be regarded is probably due not only to their educational value, but to the recognition of the fact that their introduction to a moderate extent need not result in crowding out more intellectual occupation, but that they may be attained in addition to the intellectual acquirements to whose attainment attention has heretofore chiefly been directed, by the simple diversion of a portion of those energies which are bound to vent themselves in some form of physical effort, and which would otherwise be applied lawlessly to objects of the child's own invention.

Coming now to the purely intellectual features of

education, we will first consider the subject of language. In answer to the question as to what this study can do for the mind, it may be said that it gives the power of expression. To confer this power is the aim of all language study from the educational standpoint.

The controversy concerning the relative importance of the classic and modern languages becomes simplified in this connection, for we are not now concerned with the question of expediency in the narrower sense, but with the question of absolute educational value. We shall in consequence put entirely aside those considerations which are based upon the commercial value of a knowledge of certain languages, and even upon the utility of languages regarded merely as tools needed in the pursuit of higher and more special branches of education. The question with us will be, what sort and amount of language study will best foster those powers over the various forms of expression which it is aimed to develop. Also what are the most effective methods of pursuing this study. In reply to the first of these questions, the answer comes to us from many directions: if the correct and effective use of the English language be the thing desired, by all means study the English language. That, after all, is the first and foremost thing to do. Study it in its forms present and past; study it in its accretion and development; study it in its use by those that have been masters of it; study it in those embodiments which, whether in prose or poetry, whether in drama or oration, have had and have still power over the minds of men. And supplement such study by a continual practise in all the forms within reach, in conversation and letter, in essay and oration; even in verse, if you are possessed of self-know-

ledge and self-restraint enough to know that your verse has and can have no value except to yourself and for the practise it affords, and to refrain from rushing into print with it, as if, because such work may have the highest subjective value, it must needs also possess objective worth.

But the study of one's own language, be it carried never so far, cannot, unaided, give that power over, and that knowledge of the means of expression which may be given by the study of some other language in connection with it. It is not to the point to say that many great writers and speakers have been ignorant of other languages than their own. Even after allowance has been made for the exceptional conditions of genius, it can hardly be asserted that the knowledge of some other language or languages would not have bestowed upon any of these men yet greater powers of expression, a yet finer use of the more delicate parts of the mechanism which interprets thought. The intuitions of genius can go far to compensate for the lack of such knowledge ; they cannot wholly divest it of value. With the average of intellectual workers who are without these intuitions, the value of such knowledge can hardly be overestimated. A person who has a fair knowledge of his own language, using it for all ordinary purposes with perfect correctness, and knowing something as well of its laws and structure, but having no acquaintance with any other, gets to have an exaggerated idea of its importance. The principles that govern its use seem to him immutable decrees, and he cannot conceive of the possibility of expression except in accordance with these principles. Nor is this all ; he has no means of distinguishing the

deep-seated, essential things in the structure of his language from the arbitrary and ephemeral growths of the hour or the age. To him, these things are equally with those solid, well-assured facts ; why should they not be of equal importance ?

The historical study of one's own language will to a certain extent remedy this, but a much more adequate remedy is furnished by the study of some other language, laying much stress upon the comparative aspect, and in no case leaving the study of any form or construction of the foreign language without placing by its side the corresponding form, if any, of one's own language, or, if no such form exist, showing how the language is enabled to get along without it, and whether it be the poorer thereby. Those who have given the necessary work and thought to this subject are quite generally agreed that the direct educational value of the study of foreign languages is to be found in the reflex action of such study upon the knowledge of one's own tongue.

It must not be forgotten that we do not here consider the use to be made of foreign languages as means of further acquirements, or as opening up new fields of literature, but merely the direct educational influence of the study itself, which must be considerable, if it is to justify the immense amount of time given to it by those who never make any secondary use of it. If its chief value were that of an instrument, and it were without intrinsic importance as a means of education, there would be no excuse for so incorporating it with courses of instruction as to assign it, as we do, to pupils not one in ten of whom will ever get any benefit from it, beyond that afforded by the mere exercise involved

in the acquisition of that small amount of it which is their portion. It is because a little Latin is better than none at all, just as a little mathematics is better than none at all, that this study will always retain a prominent place in the school. When a person perseveres and becomes well enough acquainted with a foreign language to speak it or to make use of its literature, this is not all that he has been working for; the labor itself has been its own exceeding great reward, and this final mastery of the language and power henceforth to command it, is so much more than was bargained for, or at least so much more than could be demanded in an equitable bargain.

The choice, then, of the language which shall do for us this service of making us acquainted with our own, is to be determined, at least as far as ordinary school courses are concerned, not so much by the value of a mastery of that language, for few will ever attain to that, as by the value of the individual lessons in bringing into light the true significance of facts of our own language hitherto insignificant to us. The individual who lays out for himself a liberal education with a fair prospect of being able to acquire it, will, of course, be much more largely influenced by considerations of the value of the language or languages in question as intellectual equipments by whose means to make further progress, but this need not concern us in our present aim, which is to determine which languages have the greatest primary educational value.

We have already seen why it is that languages have educational value at all; it is because they serve the same purpose as our own by means more or less unlike those which we employ. It is by their differences

from ours that we learn to know both them and our own. The chief question becomes then, how great should these differences be in order to give the maximum stimulus to thought. Chinese would not be of much use, except to the philologist. Its ways are too unlike those of our own language. Obviously then, we should not go too far, nor, on the other hand, should we approach too near, but there is little danger of that. At any rate we should not go beyond the languages of the Aryan family, and, as we cannot be wholly uninfluenced by practical considerations, however valuable may be the mental abstraction by which we imagine them as non-existent, our choice is really narrowed down to that between Latin and Greek on the one hand, and French and German on the other. Which of these shall be chosen is one of the most important questions with which the new education has to deal. Tradition is, of course, wholly on the side of the classics, but the new education does not recognize the authority of tradition. In this case, however, tradition has a mighty ally in the shape of the vast body of methods which remain to bear witness to the immense importance which has always attached to the teaching of the classics, and whose refinements and harmonious inter-relations may well cause the boldest to hesitate before abandoning a field of labor in which the worker is provided at the outset, as it were, with a full set of mechanical equipments, for a field in which the work done must be largely tentative to begin with, and in which the worker is continually harassed for lack of anything like a well-tested system, sanctioned by long experience. For no branch of human knowledge has been so thoroughly systematized for educational purposes as that

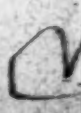
of these languages which have so long been the repository of the thought of the world, and which furnished for so long the only models of expression worthy of imitation. It is but recently that the claims of the modern languages to recognition as of equal potential value with the ancient ones for purposes of education, have been seriously considered ; we cannot then expect the work of teaching them to be done at present under other than disadvantageous conditions. And yet no serious reasons have been put forward for regarding the ancient languages as intrinsically more valuable for direct educational purposes than the modern ones. It is admitted that the systematic way in which they have for so long been taught gives them a great advantage, but this cannot be claimed as inhering in them. The sum and substance of what may be said in their behalf is that they are typical Aryan languages ; that they embody the culminating stages of the synthetic process which has fashioned from some primitive Aryan tongue the subtlest instruments of speech ever known to men, and that all modern languages of the same group are either imperfect side growths, or, if directly descended from them, have advanced too far along the analytic path which they seem destined to pursue, to afford comparison as instructive. If all this were to the point, it would tell even more fully with reference to Sanskrit than Greek. If complexity of structure and inflective machinery were above all things else desirable, then Sanskrit would be more effective as a means of education than any other Aryan language, by virtue of its declensions and conjugations. But this is not to the point. It remains to be shown that the educational value of a language is proportional to the distance it is

removed from the proper language of the student. Some distance there should undoubtedly ; be how great this distance had best be, is not so easily to be determined. At any rate, it is only fair to say that German or even French may prove to be sufficiently removed from English to be capable of affording quite as effective comparison, and thereby throwing quite as clear a light upon the ways and means of the English speech, as the more remote idioms of classical antiquity. Whether this be so or not is to be determined only by experience ; until then, it must be regarded as an open question. So thoroughly analytical a language as the English needs, for an understanding of its grammatical relations, to be studied in the light of some allied tongue which retains enough of the inflective system of Aryan speech to make the nature of that system fully intelligible. It may be found that a modern language will serve this purpose quite as well as an ancient one.

But admitting the question of the comparative value of ancient and modern languages as educational influences to be an open one, it may still be asked why it is not better to remain in the well-tried path which leads to assured results, than to venture upon a new and imperfectly tested tract. To this the answer must be that the secondary arguments, those which are based upon something beyond the immediate educational effect of language study, upon considerations of the value of that proficiency which will indeed be attained by very few, but which many will aim at, consciously or otherwise, and upon considerations of the ultimate usefulness of such study ; these arguments declare strongly in favor of a new departure. If the Greek and Roman writers have left us the best models of style and expres-

sion that we possess, the masterpieces of modern writers do not fall very far short of them, and appealing to us in more familiar tones, are quite as likely to do as much for us as any example can do. If the literature which the classic languages may place within our reach be the most valuable in the world, that which the modern languages will unfold for us is by no means unworthy of our attention. On the other hand, the needs of modern life are such as to give a much greater ultimate value to a knowledge of modern language than to an acquaintance with Greek and Latin. In the ordinary pursuits of life this value is a high one. For him who leads the intellectual life it is inestimable. A knowledge of French and German is well-nigh as indispensable to the modern worker in any field of thought as a knowledge of the alphabet to the person of ordinary avocation. He can hardly do creditable work without it.

Since, then, the primary considerations which should chiefly determine the decision of the new education upon this important subject, leave the question unsettled, it is no departure from the principles already set forth, to call in such secondary considerations as have just been advanced. Upon the strength of these, the new education feels justified in recognizing the claims of the modern languages to at least equal recognition with those of the classics. It will leave to time the final decision in favor of the one or the other. Nor does it apprehend that the serious difficulty presented by the chaotic methods of teaching the modern languages now largely in vogue will be a permanent or even an enduring obstacle. If the problem of teaching them be once approached with seriousness it will be



found that they are susceptible of the application of many of the methods already so well tested by their use in connection with the classics. Much of the accumulated wisdom which is embodied in these methods is of such a nature as to be applicable to language teaching of any kind. It will not be found so difficult a task as may at first be imagined, to divert a portion of the energies now devoted to instruction in the classics to new channels in which they may act with but slightly abated vigor. The study of modern languages is now regarded in many circles as a species of amusement. It is needless to say that when such is the case, they are not made the subject of genuine study. We may make of their study as hard work as we please. It may be made to furnish a means of mental discipline as rigorous as that now so associated with the study of the classics. That it has not, hitherto, been made to do this does not argue that it may not. What it does argue is that we must approach this study in a new spirit, and with all earnestness.

Coming now to the question of method, with which, as has already been said, the new education is more directly concerned than with choice of subjects, we may note a very marked improvement. The study of language has long been regarded as a means to an end, that end being the acquisition of a working knowledge of the language studied. But we have now come to look upon it as an end in itself, and this new view has given a new vitality to such study in its very beginning. As long as the prevailing sentiment concerning the first year or two spent in the study of a language was that the work done was of little use in itself, so long that study was sure to be mechanical, and dead as the lan-

guages which were for the most part its subject. But if it be indeed true that the primary function of language study is to afford insight into the workings of the mother-tongue, then there is no step of this study that may not be made full of vitality, if rightly taken. As long as any part of such study is made to call upon the memory alone, so long will it fall far short of its potential efficiency. But the moment that any feature of a foreign language is made to shed light upon the similar feature of our own, and to receive light in return, it is made to exert its due influence in forming the powers of expression. There are two heavy indictments to be brought against the methods of language study chiefly prevalent in the past. They have taught more grammar than is necessary, and they have made of grammar too much a study by itself, as if the soul of a language were a thing to be taken possession of by the mere memorizing of the rules of syntax. With languages well supplied with grammar, such as the Latin, these methods have attempted to embrace all the forms and all the exceptions, rather than to sieze upon the fundamentals and take hold of their genuine significance. With the English language, which has hardly any grammar worth speaking of, they have devised an artificial system modelled upon the Latin, and which is not only useless, but directly opposed to the analytic tendencies of our language. So much for the quantity of grammar. As for the treatment thereof, it is hardly necessary to enter into particulars. We all know what memory without thought can and cannot accomplish. So thoroughly has the English language become divested of its grammatical forms that the number of blunders which it is possible to make in speaking it

may be counted upon the fingers, and yet the formal knowledge of what is called English grammar does not seem to lessen the frequency with which those blunders are made, nor does the school-boy who has learned his rules of syntax seem to have any particular advantage therein over the one who has not.

"Explain why childhood's path is sown
With moral and scholastic tin tacks;
Ere sin (original) was known
Did Adam groan beneath the syntax?"

All this, be it parenthetically observed, is no defence of what are called "natural methods." All genuine language study is hard work and involves severe discipline. The new education protests that it should not be made any harder than it naturally is, by the use of artificial methods. It does not pretend to dispense with the formal study of a language in so far as this is warranted by the nature of the language. It knows that the formal knowledge of a language is indispensable as a foundation for the vital knowledge. The "natural method" in the sense in which the term is ordinarily used, is the most difficult of all methods. It is the method by which a child learns his mother-tongue simply because he is a child and cannot make use of a better one. The scientific study of language which first becomes possible with a certain degree of maturity does not take the circuitous path along which the young child perforce blunders, but strikes out in a new and more direct one, availing itself of the accumulated experience both of the student and of others older and wiser. The so-called natural method involves a great expenditure of energy with very disproportionate results.

It is the most unwise method possible, leading as a rule to a superficial and formless knowledge, and in the few cases in which it is persevered in, to an end which might have been attained much more cheaply. The new education, in short, teaches language with the sole view of realizing to the utmost the mighty power potential in words. It proceeds upon the theory that words are things to use and not to conjure with; that they are living realities, and not lifeless symbols. In order to keep this truth ever present, it has constant recourse to literature, in all of its forms, for it finds in the unremitting study of these forms its indispensable adjunct, the condition of its vitality.

But the power of expression is useless if there be nothing to express. Those studies which supply the mind with material to work upon, the studies based upon observation, now claim our attention. It is a truism to say that observation is antecedent to all study. But the random observation of the young child is a very different thing from the systematic observation encouraged by education. We may now make a very surprising discovery. Among the studies which are taken up during the years of primary education, there is but one — that of geography — which to any considerable extent, brings with it the cultivation of the observant faculty. Making observations all the time the child undoubtedly is; all sorts of object-lessons and miscellaneous instruction imparted by the teacher are materially beneficial in teaching him to observe aright; whatever he may do in the way of drawing is also helpful to him, but the fact remains that among the studies that form the staple of educational work during a number of years, — all the years that most children have to

give to their education — there is but one which in any large degree calls for observation of the phenomena of the world about. Moreover, the tendency in the treatment of that one study has been, and still is, to reduce the element of observation to the minimum, and make it, like the others, a matter of the memorizing of meaningless symbols. And yet all knowledge is based upon sensible experience, all accumulation of formula and phrase that is not so based is void of real content, is not knowledge in the true vital sense. But instead of beginning by taking firm hold of the well-assured facts of sense, we assume that perception will take care of itself, and devote ourselves to getting the higher intellectual machinery into working order, and keeping it going, careless of the sort of material which feeds it. Small wonder if the fabric which it produces be an ill-woven one, and rotten with error. It is true that geography cannot help us very much here, but we may look to it for some assistance, and the new education is quick to recognize what is to be done by the proper pursuit of this study. We can at least let it begin, like charity, at home, and occupy itself with what is familiar, before taking us to seas and mountains, to say nothing of things so utterly meaningless to the child as poles and meridians. A child may be made to understand, even when very young, what geography is for, if we set about teaching him in the right way, and by the aid of models and maps, together with what analogies may be drawn from his own physical surroundings, may be made more or less perfectly to realize what a mountain is, if he lives on a prairie, or what a prairie is, if he lives among hills. He may even come eventually to know what zones and parallels are, which

he certainly will not, if they are made the starting-point. But, as we have already said, the most rational geography is not all that is needed. There must be systematic cultivation of the senses, constant practise in minute and accurate observation all through the early years of mental growth. It was the recognition of this fundamental principle that prompted the reaction from conventional methods of which Frœbel was the leading spirit, and to which we owe the Kindergarten. The principles here involved fared hardly for a time, but they were sound, and we may now look, with some degree of confidence, for their triumph. The new education has adopted them as of the first importance. Their application may give rise to many questions of detail, but their success as principles is assured.

We may look to several of the experimental sciences for efficient aid in primary education. For this purpose physics and botany will be found to be largely available. There are many of the elementary principles of physical science that may easily be brought within the comprehension of young children, if they are first divested of their forbidding technical terminology. What physics may thus be made to do for the inanimate world, botany will do for the world of living things. These two studies seem, indeed, to be pre-eminently fitted for such use as is here suggested. They should certainly be made to occupy, in one form or another, as large a space in early education as is given to language or to arithmetic. One of the chief struggles in which the new education has found itself engaged is that which it has undertaken on behalf of the claims of natural science to a place of the first rank in systems of education. In this struggle the success already achieved has been

notable, but much is yet to be done. What is done already is chiefly in the domain of secondary education. In this field the claims of natural science are coming to be so fully recognized that there is now danger of overdoing the matter in some quarters, and of elevating them to a rank which is more than commensurate with their importance. But natural science has not yet taken the place which it deserves in primary education, and it is one of the chief of the tasks which now devolve upon the new education to establish its claims in this direction.

Natural science has not only assumed a place of greater importance in secondary education of late years, but there has also been brought about a marked improvement in its method. This, like the other recent improvements which we have noted, is to be attributed to a better theoretical view of the aims of such study than has obtained heretofore, and to broader views of education in general. If such studies as the branches of physical and biological science are based upon observation, and have as their object the cultivation of the observant faculties, then, by all means, let them be studied experimentally, from objects and not from books. So the scope and importance of the laboratory have become widened, and the book has been made what it should be — a text-book. Individual work of all kinds on the part of the pupil has been encouraged, and the teacher has become a helper whose aim is to stimulate the student in his work, instead of remaining a fountain of knowledge on draught, dispensing thereof some stipulated daily measure.

Mr. Herbert Spencer claims altogether too much for natural science in education. Such a system as he

advocates would be as lamentably one-sided as is the course of study of the most conservative college at the present day, but he spoke with a clear strong voice, and perhaps with more effect than if he had advocated half-measures. The extreme divergence of his views from those commonly held called the more attention to them. Extreme views are always the product of those critical epochs when great changes are imminent, and it is their conflict that makes clear the middle course that must inevitably be taken.

But we have thus far considered natural science in a single aspect, as the necessary correlate of language, as supplying by observation the material of expression. It has another aspect of equal importance. By its means the pupil is trained in inductive reasoning. So that, just as on the one side it comes into close relations with language, on the other it comes into equally close relations with mathematics. For just as arithmetic and geometry contribute to the mental powers the ability to reason deductively, so does natural science properly pursued, reveal the nature of, and give abundant practice in reasoning by induction. How best to teach it with this in view has already been hinted at; the secret of success will here be found, as before, in keeping a close hold on observation, in letting the law follow from the instances given, not in stating the law and then illustrating it. To do this latter, indeed, is to nullify the special effect to be produced by such studies, making them, as far as the pupil is concerned, deductive sciences. It is of course, impossible, and were it not, it would assuredly be inadvisable to establish anew by experiment each law of natural science, thus repeatedly traversing the path which the race has labo-

riously traversed before. To do this would be to neglect to avail ourselves of the acquired experience of men, but to do something like it in some few cases, in order to exhibit clearly the nature of the inductive process, and this as early in education as the powers of comprehension will admit, is of great importance; and to repeat the process at intervals during after years, that the mind may become thoroughly used to working in this way, is equally important. This being duly seen to, the majority of scientific principles may be accepted to a certain extent upon authority, that is, upon experimental ground inadequate, in the first instance, to establish them. This, of course, must be done, if the student is to gain any notion of even the leading principles of the several departments of natural science. The one and all-important thing to do is to make sure that he realize both the nature of the inductive process, and that each of these principles which he is called upon, to a certain extent authoritatively, to accept, has been at some time established by such a process.

We have seen, then, that the function of natural science in education is two-fold. On the one hand, it supplies material for thought and expression; on the other, it gives formal training to the powers of thought. Since this training is largely, although far from wholly, given to one of the two fundamental aspects of the mental process — the inductive one, it is needful that it should be supplemented by some form of training which shall, to a corresponding extent, give exercise to the deductive faculty. This is furnished us by mathematics, which claim the prominent place which we freely accord them in education upon this ground alone, being pursued upon more purely educational grounds than any

other group of studies. Here, indeed, when we have advanced beyond the stages of simple arithmetical calculation, do we find little of what is called "practical value," but much of the highest educational value. As it happens, however, that the position of mathematics in education is a well-assured one, having never been seriously attacked, we need not seek to justify it to any further extent than has already been done in defining its educational purpose. It remains to be seen what improvements in the methods of teaching these studies have been brought about by the new education. We shall find them to be such as our previous investigation has led us to expect. If the aim of mathematics in education be to form and strengthen correct habits of thinking, then away with arbitrary rules, and practical short-cuts. Even if the logical way of getting at a given result be the longest way, it will in the end turn out to be the best way, and the path of least resistance. Short-cuts may be of great practical use, they are of none educationally. Here their use is defensible only in the higher realms of mathematical science, where the processes which their use enables us to dispense with, are so well understood as to make their enforced repetition mere mechanical drudgery. The student of trigonometry may well avail himself of logarithms, for he is supposed to be fully familiar with the nature of exponents and the methods of handling them. It is needless to go into detail. To the older systems of education, arithmetic was a useful collection of rules for calculations. The result was the one thing kept constantly in mind. To attain it in the easiest way possible was the object. The means employed were unimportant. When the rules were once learned and sufficient facility at-

tained in their use to enable their easy application, the thing was done. Arithmetic was mastered, and the mind, or rather the memory, was ready for something else. The new education works by methods radically unlike these. From the very start, it appeals to thought, knowing that memory can very well care for itself. It establishes its rules upon the firm basis of reason, a more painstaking matter than forcing them upon the surface of the memory, but a paying one for all that. From first to last its progress is slow but sure. Every step taken is a permanent addition to the intellectual powers. When the study of arithmetic is finished, the mental structure which remains in evidence is an organic one; each part supports and is supported by every other. In the higher mathematics there has not been so much room for improvement, but such as has been made is in the same direction as that made in arithmetic, its whole tendency being from that which is arbitrary to that which is rational.

We have thus seen that a knowledge of formal thought is provided for in education by the proper study of natural science and of mathematics, the two working together towards a symmetrical developement of the powers of reasoning. It is true enough that we may all reason, and do from childhood reason both inductively and deductively, as M. Jourdain spoke prose all his life without knowing it, but there is a certain distinct advantage in fully realizing the nature of the process and in recognizing its laws. There are emergencies of thought in which our mother-wit will not help us, and our intellectual life is thickly beset with fallacies which may not be detected by the untrained mind; many of which are indeed so subtly

conceived that it requires the most acutely logical mind to show them in their true light. It is well that we should be prepared as far as is in our power to perceive such fallacies, for they affect us, both as individuals and as nations, more than we imagine.

Observation, thought, expression; with these three things then does education occupy itself, these constitute the trinity of intellectual power. To make of these a single, although triune whole, is the aim of education. For purposes of analysis we have had occasion to consider them separately and as distinct; we have also seen that each is best cultivated by certain studies or groups of studies, but in a broader view they are inseparable. Each is always and at every point indissolubly connected with the others. Observation is incomplete when unaccompanied by thought and expression. To reflect we must needs observe first, and afterwards give utterance, if the act is to be upon the highest level. Expression can only have value, either for others or for ourselves, when it is based upon sensible perception, and appears as the product of ripe reflection.

What are the results of the new education? In the sense of achievements fully consummated, very little; in the sense of a great and growing tendency towards something better, very much. In none of the lines upon which the new education has been working may it be said that nothing remains to do. Rather must we say that every step taken, however much a positive gain in itself, has but removed the final goal to a point more distant, has but aided to dispel the mists which gave it an illusory proximity, and shown us how much more serious the task before us than had been supposed. To make of education what the name implies, a true

working-out of the intellectual salvation, to make it an organic evolution rather than an accretion, so to direct it that its chief results shall lie within the realm of the unconscious, ineradicably fixed within the depths of being, rather than upon the effervescent surface of being which alone consciousness really is ; these have been and are still its aims. In this direction there is possible a progress no less real because devoid of landmarks, no less worthy of the employment of our best activities because it is not measured by stepping-stones, and because the path before us is quite immeasurable. The constant and strenuous endeavor after something too far off to be fully within the reach even of hope leads to better and greater results than the endeavor that is over-confident of the nearness and attainability of its ends. For when these ends once attained, are seen, as they inevitably must be, as but means to other and more distant ends, the disappointment succeeding to the flush of apparent triumph, may well serve to deaden the energies now most needed, and cause the wearied spirit "to halt behind the footless flight of hope with feet that may not follow."

But the one who has entertained no such delusive hope of the ultimate achievement of all for which he strives and has striven, will husband his strength that it may stand him in stead throughout the strife ; he will know, indeed, that his ideal may never be all realized, but will ever lead him on a weary chase "down this world-worn track," and that "while she leads, she never gazes back," but all the more resolutely will he set his face to her pursuit ; his at least will not be the complaint that

"The struggle naught availeth,
The labor and the wounds are vain,
The enemy faints not, nor faileth,
And as things have been they remain,"

for he will know that whatever may be the outcome,
the struggle itself brings its own reward; that even in
the worst event, still —

"'T is better to have fought and lost
Than never to have fought at all."

